PERSONALITIES

By George F. Taubeneck

Scrambled History

In trying to relate the hapless plight of the finned coil manufacturers last week, the writer compared their lost-in-a-fog-situation to that of "Nathan Hale, the Man Without a Country." (See front page of ELECTRIC REFRIGERATION NEWS, March 20 issue).

If news of this horrendous scrambling of American history ever gets up to the Spirit World, no doubt when we make our exit from this Vale of Wrath and Tears and present ourselves at the Bar of Judgment as a candidate for a pair of wings and a harp (as successors to Auburn and violin) Nat'an will be waitin' — with some celestial form of heavy blunt instrument.

In far better and more learned fashion than we could do it, two distinguished readers present the real historical data:

Editor:

It is a hard life—when you have to grind out an article in New York, another in Chicago, and a half dozen more on the train between—and still get your history right.

Nathan Hale is the chap who said he only had one life to give for his country. He is not "The Man Without a Country."

The gentleman without a country is a fictitious character created by Edward Everett Hale and the gentleman is Philip Nolan. "No man ever loved his country more—no man deserved less at her hands."

BURTON BIGELOW,
Burton Bigelow Organization.

Edison General Electric Appliance Co.
Chicago, Ill.

Editor:

In your article of March 20 in regard to the lack of a code for the finned coil manufacturing business, you mentioned the fact that Nathan Hale "may have had his troubles as the Man Without a Country."

For your information, Nathan Hale happened to have been hanged during the Revolutionary War for his activities as a spy for the country he loved so well. To say Nathan Hale didn't have a country is, in all charity, a little out of line with the facts.

Perhaps you were confusing the story of "The Man Without a Country" with the factual happening of Nathan Hale.

Yours for accuracy,
R. D. LA FOND.

* * *

Life Begins at 50

"I have no patience with those who say a man is through at 40," declares Captain WILLIAM SPARKS. Speaking vigorously to members of the Sparton Oldtimers Club at their tenth annual meeting and dance in Jackson, Mich., he "gave the lie" to Dr. WILLIAM OSLER, who stirred up an old-fashioned hornet's nest in the industrial world one time when he said, "All men should be chloroformed at 40."

"When a man reaches 50 he is at his best," continued the veteran president of Sparton. "His trained mind, mature judgment, and long experience cannot be offset by the nimble fingers and bodies of younger men."

Tracing the development of transportation and electricity since he entered the manufacturing business in 1900, Capt. Sparks made several predictions as to the future of industry.

"The world's next greatest show will be in the field of television and air conditioning. Although the general public has not yet been made aware of it, television in this country has made remarkable strides in the last few years," he disclosed.

"Reception facilities have been practically perfected to the entire satisfaction of engineers in television, but industry is not quite ready to invest the vast sums necessary to establish stations in this country.

"The time is not far off, and depends entirely upon that day when industry is given more definite assurance that it will not be harassed by too much legislation," he predicts.

Members of the Oldtimers Club were particularly attentive to Capt. Sparks' prediction in regard to the "world's next greatest show." Somehow you didn't expect to see such eager interest in future technical development displayed on wrinkled and careworn faces. But there it was.

No mere after-dinner speech is this talk of Capt. Sparks concerning the man over 40. The Oldtimers Club itself is concrete proof of that. There are 1,050 men and women employees belonging to the Club, and only those who have been with the company continuously for five years or more are eligible for membership.

Veteran employees, reminiscing aloud to fellow workers, revealed that 154 members have been with the company for 10 years or more; 44 have been on this same payroll for 15 years; 18 have been there 20 years; nine have 25-year records; and there are six who have been employed by Sparton for 30 or more years, or since the company was organized 35 years ago.

It was also brought out that among the workmen are 125 men who are more than 50 years old, and that 20 new men, *all over 60,* were recently employed by the company.

In contrast to his business 35 years ago when he started with 15 employees, the veteran president pointed out that his company has grown to a point where, in the last 15 years, Sparton has spent more than $57,000,000 in payrolls and for materials, exclusive of taxes and other expenses.

* * *

100 Miles an Hour

It didn't take us long after we began driving the yellow Auburn 12—which has become a familiar sight around the industry's manufacturing centers—before we learned a lesson, which was: Don't talk about its between-cities time records.

Reason: People get unaccountably mad when they learn that the Detroit-Chicago trip, for instance, can be made easily in four hours and a half or less. Why they should get violent over such a statement, we don't know. But they do. So we keep such records to ourselves.

Recently, however, we found a gentleman who casually mentions between-cities times of his own which are in the same category. He is the same man who doesn't believe a man is no longer useful when his hair becomes white—Captain WILLIAM SPARKS, president of the Sparks-Withington Co. He drives a Packard Twelve.

He covers incredible distances—such as Jackson to Miami—in times that would probably make a good many persons unaccountably angry if we printed them here. Like the writer, Capt. Sparks takes no chances—with a really fast car, one capable of 100 miles per hour or better, you don't need to take chances to get places in a hurry.

But speed somehow seems a little foreign to this heart-warming gentleman from Jackson, Mich. His local benevolences, his religious faith, and his humanitarian ideals are in surprising contrast to the picture of the hard-driving, fast-driving manufacturer one first gets.

Capt. Sparks is the first executive we have ever heard bring God into a sales meeting. He does it at every convention in every speech—telling members of his organization that there is a Higher Power on which they may draw for help, guidance, and renewed strength.

* * *

Eighteenth Century

E. T. H. HUTCHINSON, alert eastern sales manager of the Sparks-Withington Co., recently found himself buried in the past, figuratively speaking of course. Or so he told Sparton distributors.

This mental burial occurred in what Mr. Hutchinson says is America's oldest hardware store, the Steinman hardware store in Lancaster, Pa., which this year celebrates its 191st anniversary.

Mr. Hutchinson was whisked back to Colonial days while sitting in the office of SAMUEL B. SMITH, secretary of the Steinman store, as the two men concluded a business deal in which the famous old store became official distributing home for Sparton radios and refrigerators.

Mr. Smith, it seems, was working as an office boy in Steinman's back in 1892. In carrying out orders to burn some musty old records occupying much-needed space in the basement, the youth became much interested in an old ledger, marked "Day Book B."

Studying it at home that night, he discovered a set of records that today is the most highly prized possession of the Steinman store. One page in particular is dated 1744, while another page, carrying a 1760 date, shows an account with one GEORGE ROSS, who some years later became famous as one of the signers of the Declaration of Independence.

The old records, further, contained a receipt of a purchase made by J. BROWN for that same GEORGE ROSS in 1779, an order for 100 camp kettles and a quantity of horse shoes for George Washington's army at Valley Forge.

The Steinman store which supplied that equipment occupies its original site today, but now operates on a far greater scale.

* * *

Idea Man

"Whomell does this guy WALTER DAILY think he is, anyway?" asked a friend of ours recently. "Starting an advertising agency takes a lotta crust, and you've gotta have something on the ball—something different—if you achieve any recognition at all. What's he got, anyway?"

What WALTER DAILY has, we told this friend (who, by the way, hasn't been in the electric refrigeration business long) is the kind of mind that sparks out ideas like a piece of steel on an emery wheel.

He has made a good living so far selling ideas, and we have a hunch he has now gone into a business where he can get paid commensurately for them.

"Will he get the G-E business?" That's the question most frequently asked us by people around the industry.

The answer seems to be "no." Both G-E officials and Walt deny that he is after the G-E account. He is simply fulfilling a lifelong ambition in starting his own advertising agency, and he believes he has chosen an auspicious time to get going.

Walter was in Detroit the other day, and we've never seen him so happy or so keyed up as he seemed to be then.

He has a new heating element for electric ranges under his wing, and is hot after a couple of important appliance accounts.

* * *

His Record

In his many capacities in the field of advertising and sales promotion, as a director of the Association of National Advertisers, as a director of the Cleveland Advertising Club, as a speaker before advertising conventions and advertising clubs throughout the country, Walter Daily's ideas always have been sought.

Four years he was with Federal Advertising Agency in New York City, doing everything—copy, production, research, contacting. Then three with the late Thomas E. Logan, until the latter's death.

Finally, the big chance, when T. K. QUINN (now a G-E vice president) and P. B. ZIMMERMAN (now manager of the company's specialty appliance sales department) were starting General Electric in the refrigeration field. Appointed sales promotion manager at the start, Daily was soon given the advertising managership.

Then things began to happen. Administering a consistently growing advertising budget, directing expeditures for advertising, direct mail, radio, outdoor, literature, window displays, he helped "Quinn & Zim" push G-E to the pole position in the race for refrigeration business in three years.

Walt specialized in helping individual distributors and dealers with their local sales promotion problems.

An example: even the dealer's direct mail pieces were definitely scheduled. Every activity had a date, so that each could be coordinated on a nation-wide basis.

Let's have a look at some of his result-producing ideas:

The G-E sales correspondence course which he founded had as many as 10,000 salesman-students.

A national magazine, *The Silent Hostess,* directed to refrigeration prospects, had a circulation of 800,000.

The monthly house organ, *On The Top,* which he started, and which now contains 48 pages per issue, has gone to as many as 25,000 people interested in selling G-E kitchen appliances.

A recipe book, produced under his direction, put G-E before thousands of housewives, and sold nearly a million copies at 25 cents a copy.

Through his tab on Hollywood, the G-E refrigerator has been shown in more than 400 feature movies, leading up to the last, "Bright Eyes," in which Shirley Temple was starred.

* * *

That Famous Train

Biggest publicity venture of all, the G-E-Warner Brothers "Forty-Second Street Special," which carried a complete electric kitchen and a host of movie celebrities across the continent to President Roosevelt's inaugural in a blaze of G-E and Warner publicity, was his baby.

Walt took the writer along on that journey, and take it from us, the train was greeted so overwhelmingly in a dozen cities that all business was practically suspended for the duration of the visits.

Production of a special movie, "Just Around the Corner," with BETTE DAVIS, JOAN BLONDELL, WARREN WILLIAM, RUTH DONNELLY, DICK POWELL, and others, written around the G-E kitchen, and pronounced one of the best commercial movies produced anywhere, which is still being shown and which has reached an estimated circulation of 10,000,000.

At one time there were 53 different, specific duties controlled by Daily's advertising and sales promotion department—including everything from store design and window displays to motion pictures and sales campaigns. The direct mail list at one time totaled more than 1,000,000 names.

In contrast, his division has had direct mail specifically designed and directed to as few as 5,000 names. A special campaign to the apartment-house market went to as few as 20,000 people.

Once, to convince a sales convention of the value of radio advertising, Daily persuaded ROSA PONSELLE, BRUCE BARTON, GRANTLAND RICE, and M. H. AYLESWORTH, president of NBC, to combine in an actual broadcast from Chicago and New York. He got the idea across. We know, because we were there and heard it.

Mr. Daily has some very specific ideas about advertising and what an agency can and should do. We quote:

* * *

What He Believes

"Few advertising people seem to understand thoroughly the workings of sales promotion and publicity. Yet, on many products, these are very important. There may be specialists on each of these important activities, but if there is not one who really knows how to tie all of these loose ends together, the result is not effective.

"In other words, publicity and sales promotion should be definitely tied up to advertising, so that the one complements the other."

On helping clients of the new agency:

"We shall follow the recommendations of the Association of National Advertisers—offering our services on copy, art, media, and research. While several of us have had considerable merchandising experience, nevertheless we believe the advertiser is best qualified to settle his problems on this score.

"We honestly believe our sales promotion people have had more actual, practical experience than any other similar group in the country—and experience in this kind of work is important if the utmost in dollar value is to be realized.

"Quite often the sales promotional efforts are not geared to the advertising—a mistake, in my opinion."

* * *

Agency Service

On present-day agency service he has this to say:

"Generally speaking, the service is intelligent and good. Perhaps there is little real, practical experience behind much of the service.

"I really do not believe that agency training alone is enough—it is too far removed from the firing line. I know that I found out how little I knew about advertising and sales promotion when I left an agency after several years of very fine training and became an advertising manager.

"Then I really had a chance to watch advertising work—and I realized for the first time that there was more than space to the advertising program.

"Nor do I think that selling experience, without the addition of years of advertising training, is a sound qualification. It takes hard, tough experience on both sides of the fence to qualify an advertising agency to advise the client on the spending of thousands of dollars.

"Of course, these are only my personal opinions—perhaps I am too serious about it.

* * *

Writing Copy

On copy writers and their qualifications, Mr. Daily opines:

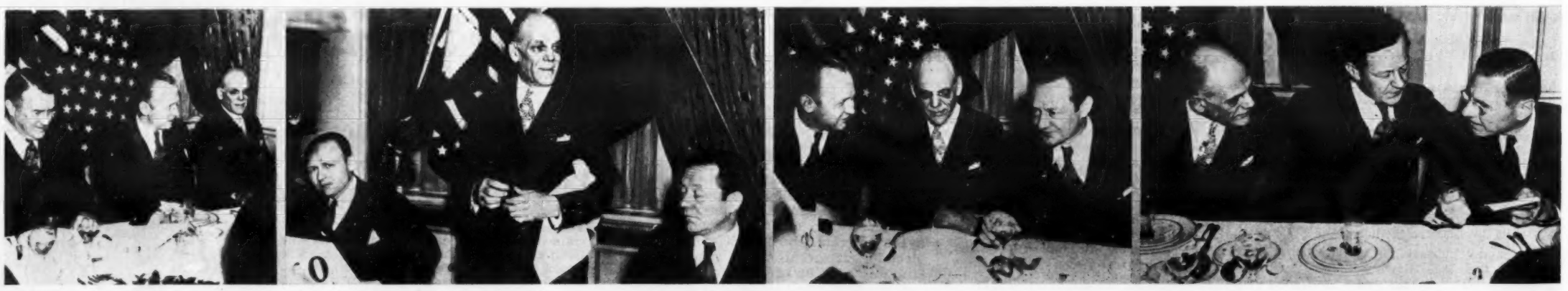
"Of course, it goes without saying that a copy writer must know the product, how it is made, the quality that is built into it. More important, however, is that he should know how it will serve the prospect.

"He should put himself in the prospect's place, in order to write copy with the right appeal to buy. That is why our people have, from time to time, made researches, gone out and called on prospects ourselves.

"Ringing doorbells or making "cold canvass" calls is a help to any copy writer."

Associated with him in his new venture are two old friends: STANLEY C. PATNO, heretofore an official in the sales promotion department of the Rogers Williams Co., and IRA COPE, formerly head of his own firm, Cope, Inc., printers.

'New York Market Saturated? Why, We're Just Getting Started,' Rex Cole Insists



The recent General Electric water cooler conference in New York City gave ranking eastern G-E distributors and officials a chance to compare notes not only on the water cooler market, but on the industry as a whole. (1) A. M. Sweeney, manager of the sales division of G-E's specialty appliance sales department, and Rex Cole, New York City G-E distributor, hear Paul A. Hunker, water cooler specialist, estimate the number of coolers which can be placed in the city's large office buildings alone. (2) "We'll put in our share of 'em before we get out of the skyscraper district," Rex Cole predicts, as Mr. Hunker and G-E Vice President T. K. Quinn listen. (2) Mr. Hunker and Mr. Quinn, with Mr. Cole's assistance, do a mental calculation of how many G-E coolers it would take to fill the Empire State building. (4) "But, Rex," says Manager P. B. Zimmerman of the G-E specialty appliance sales department, "don't overlook the small store and office market," and cites figures to show how many additional sales can be picked up there.

THE NEWSPAPER OF THE INDUSTRY

ELECTRIC REFRIGERATION NEWS

WRITTEN TO BE READ ON ARRIVAL

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Sales of Entire Industry Total 128,300 in Feb.

230,900 Household Units Shipped in First Two Months

By A. J. Cutting

DETROIT—Decisively smashing all previous sales records for the month of February, industry manufacturers sold an estimated 128,300 household electric refrigerators to distributors and dealers during the second month of 1935. This year's figure shows a gain of better than 55 per cent over the 1934 February figure of 82,500 units.

During the first two months of the year industry producers shipped 230,900 refrigerators to distribution outlets showing an increase of more than 91 per cent over the same period of 1934. The figure for the first two months of this year appears more impressive when it is recalled that, in their time, January and February of 1934 were also record breaking months in which new high marks were reached. In fact, this history of the first five months of 1934 was the establishment of one new monthly record after another.

Distributors and dealers are evidently trading on the equity of last year's success and are filling up their warehouses and stock rooms in the early months of the year in anticipation of heavy consumer buying. Manufacturers went into production earlier than in previous years to be in a position to handle the demands of representatives after several had suffered the embarrassment of being unable to promptly fill orders in the first few months of 1934.

During February, 1935, 14 reporting

(*Concluded on Page 2, Column 4*)

Crosley Returning Men to Old Jobs

CINCINNATI—Following settlement of the general strike which forced a shutdown of the Crosley Radio Corp.'s plant here a fortnight ago, employees are being returned to their jobs as quickly as possible, and everything is being rushed to resume a full operating schedule at the earliest possible moment, Crosley officials report.

It was expected that most of the workers would be back at their old positions by the first of the present week.

8 Distributors Named By Ice-O-Matic

BLOOMINGTON, Ill.—Williams Oil-O-Matic Heating Corp., recently appointed the following eight distributors to handle the complete Ice-O-Matic line:

Illinois Refrigeration Co., East St. Louis, Ill., Louis Weiss, owner and manager; Central Supply Co., Galesburg, Ill., Marc Parsons, owner; Peerless Equipment Co., Inc., West Palm Beach, Fla.; General Equipment Corp., Fort Wayne, Ind.; Dalton Electric Co., Jacksonville, Fla.; Dixie Fixture Co., Savannah, Ga.; Thomas Fleming, Alton, Ill.

August Weder, Highland, Ill., and Quality Dairy Co., Inc., St. Louis, Mo. have been appointed distributors for Ice-O-Matic milk cooling equipment. Standard Distributing Corp., Milwaukee, Wis. is handling the household line, and Fay Rodgers Refrigerator Works, Memphis, Tenn. has been appointed distributor for commercial, milk cooling, and truck refrigeration equipment.

14 Furniture Stores to Handle Conservadors

NEW YORK CITY—Two large furniture houses in the New York City area, Ludwig Baumann, with eight stores, and John A. Schwarz, with six stores, have added the Fairbanks-Morse line of Conservador electric refrigerators and are featuring them in local newspaper advertising.

Frigidaire Plans to Educate Public on Air Conditioning

DAYTON—After a year's program of training dealers, salesmen, and engineers to handle air-conditioning activity on a sound basis, Frigidaire Corp. has announced plans for a new and broader selling campaign, designed to educate the public to the practical advantages of air conditioning in home, office, business, and industry.

Frigidaire enters this year's market with a complete line of products, designed for all types of air-conditioning installations ranging from small units for single rooms to central systems for large buildings.

The 1935 line embraces four classifications:

(1) A complete series of self-contained units, a type pioneered by Frigidaire for summer or year-'round conditioning; (2) floor cabinet types, for summer and year-'round conditioning; (3) store units, for ceiling installation where space is at a premium;

(*Concluded on Page 22, Column 4*)

Sales of 36,011 Units Reported By Kelvinator

Orders Evenly Distributed Over Country, Says H. W. Burritt

DETROIT—March shipments to customers by Kelvinator Corp. reached a new high for that month of 36,011 units, and brought total shipments for the first six months of the company's current fiscal year up to a point 36 per cent ahead of the same period last year, reports H. W. Burritt, vice president in charge of sales.

Mr. Burritt declares that shipments for the first six months of the present fiscal year are within 1 per cent of the total for the entire year of 1929—last year of the so-called boom period.

"A significant aspect of this March increase is that the orders which led to the new shipment record were evenly distributed over the entire country," Mr. Burritt reported.

1935 Refrigeration Directory Being Mailed

DETROIT—First copies of the 1935 REFRIGERATION AND AIR CONDITIONING DIRECTORY are being mailed to advertisers and paid-in-advance subscribers this week. The 380-page book, the first volume of the Refrigeration Library, is attractively bound in a heavy green paper cover with buff back binding and measures 6¼ by 8¾ in., being of convenient size to be carried by salesmen and traveling representatives.

From stem to stern the new DIRECTORY has been revised and rearranged to such an extent that it bears little resemblance to the 1934 edition.

In compiling the first volume, particular attention was paid to the classification of various types of products in logically related groups. Numerous indices and a special cross-reference index at the back of the book aid users in quickly locating products in which they are interested.

(*Concluded on Page 2, Column 1*)

Frigidaire Unit Shipments Total 51,277 in Month

103 Carloads Shipped from Dayton March 29 to Distributors

DAYTON—Frigidaire Corp. shipped 51,277 household electric refrigerators, commercial refrigeration units, and air conditioners last month, shattering all company records for the month of March, E. G. Biechler, president and general manager, reported last Saturday.

On Friday, March 29, all daily shipping records since 1929 were broken with the dispatching of 103 carloads.

Frigidaire's two plants here have been functioning at peak production throughout the winter under the Frigidaire employment stabilization plan, Mr. Biechler stated.

News to Entertain Engineers May 22

DETROIT—Delegates to the three-day convention of the American Society of Refrigeration Engineers and their wives will attend a "Refrigeration Fiesta" on Wednesday, May 22, the first evening of the convention, when ELECTRIC REFRIGERATION NEWS will play host for the evening, George B. Bright, chairman of the program committee for the convention announced Monday.

Invitations are to be issued to a number of Detroit A.S.R.E. and A.S.H.V.E. engineers and their wives to assist in welcoming and entertaining the out-of-town guests.

Dinner will be served by a caterer in the new building of the NEWS at 6:30, and will be followed by a full evening's entertainment. In addition to an orchestra for dancing, and professional entertainers, provisions have been made for varied sorts of amusement in different sections of the building.

Other entertainment features sched-

(*Concluded on Page 2, Column 5*)

Gibson Offers 4-Year Service Contract

GREENVILLE, Mich.—A four-year extension contract, guaranteeing the user against replacement cost on the Gibson hermetically sealed "Mono-unit," is now being offered for an additional charge of $5 to the retail price by Gibson Electric Refrigerator Corp.

The unit carries the regular one-year guarantee and the Gibson warranty plan is thus similar to that employed by General Electric and Westinghouse on their sealed household refrigerating units.

125 Carloads of Crosleys Ordered by Apollo

CINCINNATI—An order for 125 carloads of Crosley electric refrigerators with a retail value of $1,000,000, was recently received by the Crosley Radio Corp., from the Apollo Distributing Co. of Newark.

H. R. Richardson, assistant to Powel Crosley, Jr., president of the Crosley Radio Corp., received the order from Dave Slobodien, president, and Fred Goldberg, secretary-treasurer of the Apollo Co.

Heating Contractors Meet May 20 in Cincinnati

CINCINNATI—The Heating, Piping, and Air Conditioning Contractors National Association will hold its forty-sixth annual convention in Hotel Gibson here May 20, 21, and 22.

A full program of addresses and reports has been worked out for the convention, and a local committee has been appointed to handle detailed arrangements for the affair.

Manufacturers and non-members of the association have been invited to attend the convention sessions.

Cross-Section of Industry Sales Strategy Revealed in 'Paper Convention'

By George F. Taubeneck

DETROIT—If competition is the life of trade, then 1935 should be an unusually lively one for electric refrigeration—if we may judge by the response to the invitation recently issued by ELECTRIC REFRIGERATION NEWS to the industry's leading sales managers. This invitation offered an opportunity for sales executives to address the readers of ELECTRIC REFRIGERATION NEWS as if they were one huge audience of dealers and salesmen in convention assembled.

"In this Sales Convention Issue," we told them, "you may tell your dealers and salesmen just how they can go about selling more refrigeration equipment in 1935. Present the latest selling methods, list the sales arguments and appeals which should be the most effective this year, and explain the procedure by means of which they can sell the most units per dollar invested and effort-hour expended."

What we wanted, in other words, was the latest product of the sales strategy boards and the consumer psychology laboratories. Whether or not to wear a white carnation in the buttonhole; how to locate good prospects (such as by taking down addresses of homes displaying an ice card, tracking down automobile owners, giving bridge parties at the showroom, etc.); how to get into the prospect's kitchen; tested methods for closing the sale; how to convert an interest in a 4-cu. ft. model into a desire for a 6 or 7-cu. ft. box; et cetera, et cetera, in great detail—that was what we sought.

What we got was a flock of product descriptions, emphasizing the features which made their products "unquestionably the greatest contributions to the science of refrigeration, the most valuable and economical quality products ever offered to the consumer, and the most profitable and worry-free opportunity offered to distributors and dealers since the dawn of the industry."

Invitations to speak on the ELECTRIC REFRIGERATION NEWS rostrum had been issued only to advertisers at the behest of Publisher F. M. Cockrell, but the editorial staff hardly expected to see a stack of "free advertisements" come back in response to its request for sales manual material.

And then a light dawned. This year, it would appear, manufacturers are not fighting *sales resistance* so much as they are combatting *competition.* It is no longer a question of getting inside the door of the prospect's home, but of beating five or six competing salesmen there. Instead of selling the *idea* of electric refrigeration, today's sales organizations are presenting the merits of one *make* against all other brands.

It is taken for granted that all the available dealers are enfranchised. The sales manager's chief problem now becomes that of *getting the best dealers* away from other sales managers, and his chief worry that of *holding his own dealers* against the inroads of proselyting from other manufacturers.

More and more dealerships are coming to carry two and three competing lines of refrigeration products. In these cases the sales manager's job is to get the dealer to concentrate attention on his particular line.

When these sales managers saw an opportunity to talk to the industry's best dealers through the columns of ELECTRIC REFRIGERATION NEWS, they jumped almost as one man to present their *competitive* sales story. If the NEWS had an advertising manager, he should be able to make capital of that.

By dint of sending some manuscripts back to the authors for revision in light of our original purpose, by suggested additions, and by careful editing, it has been possible to collect for this issue a really worthy assemblage of sales manual material. There is much—perhaps too much—product material; but there are also enough valuable ideas and suggestions to justify careful reading.

One big disappointment was the inability of a Frigidaire executive to appear on the program we are about to present. The acknowledged leader of the industry, the manufacturer which has sold far and away the most refrigeration units, has been particularly strong on sales education, on anticipating the problems which will confront the dealer and salesman and solving them in advance.

But the entire Frigidaire sales executive staff is in the field. Not only that, but they are traveling so fast that not even the home office can locate them and *keep them located* for any reasonable length of time. This same explanation of Frigidaire's absence holds true for several other manufacturers. And some of the manufacturers who are represented in this issue admit that they are so pressed for time in this busiest of all busy seasons that they couldn't do justice to the idea. (*Continued on page 4*)

BEST SELLING METHODS FOR 1935 EXPLAINED BY LEADERS IN THIS ISSUE

1,200 Manufacturers Are Listed in 1935 Refrigeration Directory

(Concluded from Page 1, Column 4)

A complete index of advertisers is also included.

As in previous editions, manufacturers are listed in four different sections. In all, over 1,200 manufacturers of refrigeration and air-conditioning equipment, parts, materials, supplies, and tools are included.

In the Alphabetic Index, which occupies 20 pages, companies are arranged from A to Z for convenience in quickly locating the address of a manufacturer when only the firm name is known. The Trade Name Register, which takes 32 pages, identifies present and past trade names with the product and the name and address of the manufacturer.

In the 64-page Geographic Directory manufacturers are listed alphabetically under the state and city in which they are located. Telephone numbers, name and titles of offices, and a summary of products are also included for each company.

The Classified Products Directory, which occupies 203 pages, lists manufacturers under each product made, related products being grouped together under the same main headings. For example, all types of air-conditioning systems together with air-conditioning parts and accessories are classified in one section. Similarly, household refrigeration systems, cabinets, parts, and accessories are grouped together.

The large commercial refrigeration section includes such groups as beer and beverage cooling equipment, dairy, ice cream and soda fountain equipment, commercial systems, cabinets, and component parts, water cooling equipment, and truck refrigeration equipment.

Materials, parts, supplies, and tools which apply to both household and commercial equipment are listed in a separate section. Included are such items as motors, controls, valves, fittings, tubing, refrigerants, metals, and parts for all sizes of compressors, condensers, and cooling units. The last section is devoted to miscellaneous electrical appliances.

A new feature of the 1935 DIRECTORY is the special service section which occupies 25 pages. Included are lists of various non-manufacturing groups serving the electric refrigeration industry such as jobbers supplying replacement parts, manufacturers' sales representatives, and a large number of independent service companies located in all parts of the country.

Other groups listed include schools offering home study and residence training courses in refrigeration and air conditioning, patent attorneys, time payment financing organizations, testing laboratories, engineers, export representatives, jobbers of reconditioned refrigerators, and companies specializing in motor repairing.

The DIRECTORY also includes a 12-page section listing national and local trade associations serving the refrigeration, air-conditioning, and allied industries, together with official personnel for 1935 when such information could be obtained.

Work is progressing rapidly on the 1935 REFRIGERATION AND AIR CONDITIONING MARKET DATA BOOK, Volume II of the Refrigeration Library, and it is expected that this book will be available within three weeks. The MARKET DATA BOOK will contain all statistical matter available on the refrigeration and air-conditioning industries and will be profusely illustrated with charts and graphs.

116,786 Household Refrigerators SOLD By 14 Companies in February, 1935

The following 14 member companies of the Refrigeration Division of the National Electrical Manufacturers Association (Nema) reported sales for February, 1935: Apex Elec. & Mfg. Co., Crosley Radio Corp., Frigidaire Corp., General Electric Co., Gibson Electric Refrigerator Corp., Kelvinator Corp., Leonard Refrigeration Co., Norge Corp., Servel, Inc., Stewart-Warner Corp., Sunbeam Electric Mfg. Co., Uniflow Mfg. Co., Universal Cooler Corp., and Westinghouse Electric & Mfg. Co. Member companies not reporting included: Jomoco, Inc., Merchant & Evans Co., and Sparks-Withington Co. The sales of the reporting companies do, however, include units manufactured for the following concerns: Major Appliance Corp., Montgomery Ward & Co., Potter Refrigerator Corp., Sears, Roebuck & Co., and Truscon Steel Co. The report below covers the sale of household refrigerators only. Reports on sales of commercial units; factory, dealer, and distributor stocks, and production have not been completed.

HOUSEHOLD Lacquer (Exterior) Cabinets with Systems	Domestic Quantity	Domestic Sales Value	Canadian Quantity	Canadian Sales Value	Other Foreign Quantity	Other Foreign Sales Value
1. Chest	1,367	$ 68,995	18	$ 874	582	$ 29,483
2. Less than 3 cubic feet	54	2,757	....	.....	62	3,187
3. 3 to 3.99 cubic feet..	1,856	107,276	....	.....	501	28,363
4. 4 to 4.99 cubic feet..	18,547	1,192,560	109	6,250	1,251	79,195
5. 5 to 5.99 cubic feet..	19,238	1,487,591	145	11,742	820	64,077
6. 6 to 6.99 cubic feet..	14,785	1,353,754	62	5,398	352	31,892
7. 7 to 7.99 cubic feet..	8,369	901,638	109	10,932	236	26,705
8. 8 to 9.99 cubic feet..	2,228	255,700	13	1,457	68	7,686
9. 10 to 12.99 cubic feet..	14	2,809	....	.....	13	2,640
10. 13 and up, cubic feet..	2	464	1	193	....	.....
11. Total Lacquer	**66,460**	**5,373,544**	**457**	**36,846**	**3,885**	**273,228**
Porcelain (Exterior) Cabinets with Systems						
12. Up to 4.99 cubic feet..	478	37,429	1	77	79	6,247
13. 5 to 5.99 cubic feet..	4,500	401,067	5	437	108	9,699
14. 6 to 6.99 cubic feet..	6,088	634,413	18	1,827	244	24,987
15. 7 to 7.99 cubic feet..	5,165	601,569	11	1,217	168	19,407
16. 8 to 9.99 cubic feet..	2,263	317,414	9	1,213	83	12,487
17. 10 to 12.99 cubic feet..	613	108,224	2	339	46	7,973
18. 13 and up, cubic feet..	183	42,579	....	.....	20	4,888
19. Total Porcelain	**19,290**	**2,142,695**	**46**	**5,110**	**748**	**85,688**
20. Total Lines 11 and 19..	**85,750**	**7,516,239**	**503**	**41,956**	**4,633**	**358,916**
21. Separate Systems ¼ hp. or Less	25,313	962,475	....	.....	305	19,903
22. Separate Household Evaporators	240	4,258	30	424	12	415
23. Total Lines 20, 21, 22..	**111,303**	.....	**533**	.....	**4,950**	.....
24. Condensing Units, ¼ hp. or Less	351	21,724	7	423	607	37,075
25. Cabinets—No Systems.	1,292	40,354	....	.....	....	.....
26. Total Household	....	**$8,545,050**	....	**$ 42,803**	....	**$416,309**

Program Arranged For A.S.R.E.

(Concluded from Page 1, Column 5)

uled for the convention are the annual A.S.R.E. golf tournament, an inspection trip to the Ford and Kelvinator plant, a trip to Ford's Greenfield Village, and a dinner at Dearborn Inn.

Miss Elizabeth Bright, daughter of George Bright, is chairman of the woman's committee. Golf matches, shopping trips, and bridge are on the calendar of entertainment for women. A tour through Detroit's Art Museum is also scheduled.

The technical program includes a session on air conditioning, another on commercial machinery and a third on standards.

Program Starts May 22

The three-day program will open at 9 a. m. on Wednesday, May 22, with the registration of delegates. First session, with air conditioning as its topic, will begin at 10 a. m., with Harry Harrison, president of the A.S.R.E., as chairman.

Philip Drinker of the Harvard School of Public Health, Cambridge, Mass., will discuss "Air Conditioning and Odor Control," and "Window Glass as Insulation" will be explained by a representative of the Owens-Illinois Glass Co.

Following an inspection of the air-conditioning equipment in Hotel Statler, convention headquarters, a welcome luncheon will be served at 12:30 p. m.

The afternoon will be spent in a trip by delegates to either the Ford or the Kelvinator plant. Wednesday night is the Refrigeration Fiesta, to be given by the NEWS, with the program beginning at 6:30 p. m.

Second-day sessions will get under way at 10 a. m., with George Bright, a past president of the organization, as chairman. Topic will be "Commercial Machinery."

"Refrigerated Display Windows," will be explained by H. C. McPherson, Cincinnati, and "Absorption Refrigeration" by B. H. Jennings of the department of mechanical engineering of Lehigh University, Bethlehem, Pa.

Government Financing

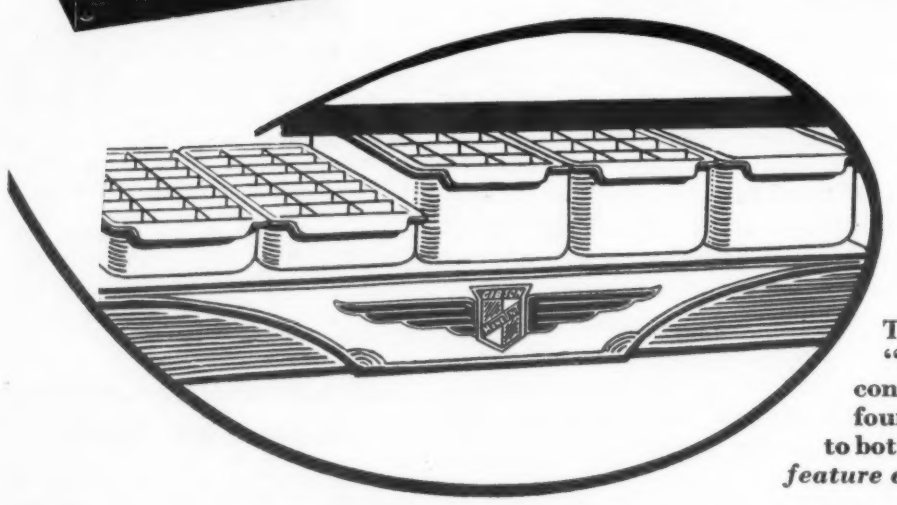
"Government Financing of Building Improvements" will be outlined by a representative of the Federal Housing Administration staff in Washington, D. C., after which a council luncheon will be held at 12:30 p. m.

The afternoon will be turned over to a general sightseeing trip, with a trip to Greenfield Village scheduled for 2:30, and dinner in Dearborn Inn at 6:30 p. m.

S. C. Bloom, A.S.R.E. vice president, will be in charge of the final day's session, which will be devoted to "Progress in Standards." After opening of the session at 10 a. m., delegates will listen to discussions on "Rating and Development of Extended Cooling Surfaces," "Industrial Machine Standards," and "Rating Commercial Equipment."

The GIBSON Magic Freez'r Shelf is not an experiment. It has been tested under the most exacting conditions. It permits faster freezing because all trays are *in contact* with the freezing coil. There is more storage room inside, because a more scientific distribution of space is possible, across the entire width of the cabinet.

The
GIBSON
MAGIC
Freez'r Shelf
MAKES "LOOKERS"
BUY!



The GIBSON Magic Freez'r Shelf is one of the most important factors in the rapid success of the GIBSON models for 1935.

The new models have exceptional "eye appeal". They have every convenience feature which has been found of practical value. From top to bottom, there is *an important sales feature on every shelf.*

But it is really the Magic Freez'r Shelf which has fired the imagination of Dealers and Salesmen. More than any other single feature the Magic Freez'r Shelf has caused many prospects to B-U-Y.

You should be making some of those sales.

PRICED FROM $79.50 to $254.50

GIBSON

ELECTRIC REFRIGERATOR CORPORATION

Eastern Division Office
33 W. 42nd Street
New York, N. Y.

General Sales Office
201 North Wells Building
Chicago, Illinois

Home Office & Factories
Greenville, Michigan

5 YEAR! PERFORMANCE PROTECTION

128,300 Units Sold by Industry in Feb.

(Concluded from Page 1, Column 1)

members of the Refrigeration Division of the National Electrical Manufacturers Association (Nema) sold 116,786 household electric refrigerators to distributors and dealers bringing the two months total to 210,153. Nema companies reporting sales for February were Apex, Crosley, General Electric, Gibson, Kelvinator, Leonard, Norge, Servel, Stewart-Warner, Sunbeam, Uniflow, Universal Cooler, and Westinghouse. Jomoco, Merchant & Evans and Sparks-Withington did not report their figures in either January or February. The figure for Nema companies includes refrigerating units made by members for Fairbanks-Morse, Major, Montgomery Ward, Potter, Sears, Roebuck, and Truscon Steel.

The Nema report showing household sales for the month of February will be found on page ? of this issue. The commercial sales bulletin for February has not as yet been issued as complete information has not been secured from member companies. This report will be published as soon as received.

9 Grand Rapids Salesmen Visit Kelvinator

DETROIT—Nine star salesmen from the Grand Rapids division of Consumers Power Co., leader in the number of electric refrigerators sold by all the utility company cities, were recent guests of Kelvinator Corp. here.

Visiting salesmen were: Herman Engstrom, Willard Asman, Arthur J. Bardish, Frank Gorman, Philip Miller, Ted Rosenthall, Ward Crawford, Ernest Nelson, and Walter Draper.

Features of the visit were a trip through the Kelvinator factory, a tour of the city and Greenfield Village, and an evening's entertainment at the Commodore Club.

Stewart-Warner Sales Up For First 2 Months

CHICAGO—Sales of Stewart-Warner Corp. and its subsidiaries for the first three months of 1935 were approximately 30 per cent larger than for the corresponding period of 1934, reports James S. Knowlson, chairman of the board of directors.

Net profits after all charges of January and February, he reports, exceeded $200,000, as against earnings of $32,000 in first two months of 1934.

Decker Heads Installations For Chicago Wesco

CHICAGO—P. M. Decker, for the past 12 years with the Apex Electrical Mfg. Co. of Cleveland, has joined the Westinghouse Electric Supply Co. as manager of mechanical operations including domestic and commercial refrigeration installations for the Chicago district.

NOTICE

The Subscription Department of ELECTRIC REFRIGERATION NEWS has received nine coin cards, each one with 25 cents enclosed (ordering the four issues containing specifications of household and commercial refrigerators and air-conditioning equipment) *but without addresses.* The cards are postmarked from the following cities:

Yonkers, N. Y.
Pontiac, Mich.
Cuba, N. Y.
————, Pa.
Grand Central Annex, N. Y.
Council Bluffs, Iowa.
De Soto, Mo.
Waseca, Minn.
Fordham Station, N. Y.

Note to subscribers in the above cities: If you hear any one voicing complaint that he sent a quarter to the NEWS but failed to receive the specifications issues, will you please call his attention to this item and suggest that he send us a postal card giving the date on which the coin card was mailed?

THE MASTERCRAFT
ADJUSTABLE PAD AND CARRYING HARNESS
The most economical and convenient pad and harness for the delivery and handling of automatic refrigerators.

Both pad and harness are adjustable to practically all sizes and makes of automatic refrigerators, necessitating the purchase of one size only. Sturdily constructed for safety, thorough protection and long service. Name of refrigerator attractively lettered on pad without charge.

PAD ..... $9.50 each
CARRYING HARNESS ..... $6.00 each
Pipes per complete set ..... $1.75 extra
(Pipes furnished only when specified.)

STYLE L (above) for cabinets with legs.
Order STYLE F for cabinets without legs.

PROMPT SHIPMENT FROM STOCK
BEARSE MANUFACTURING CO.
3815-3825 Cortland Street, Chicago, Illinois
All phones: Belmont 8710

ANNOUNCING
a sensational new line of
GENERAL ELECTRIC
WATER COOLERS

New Models • New Styling • New Features • New Standards of Sanitation

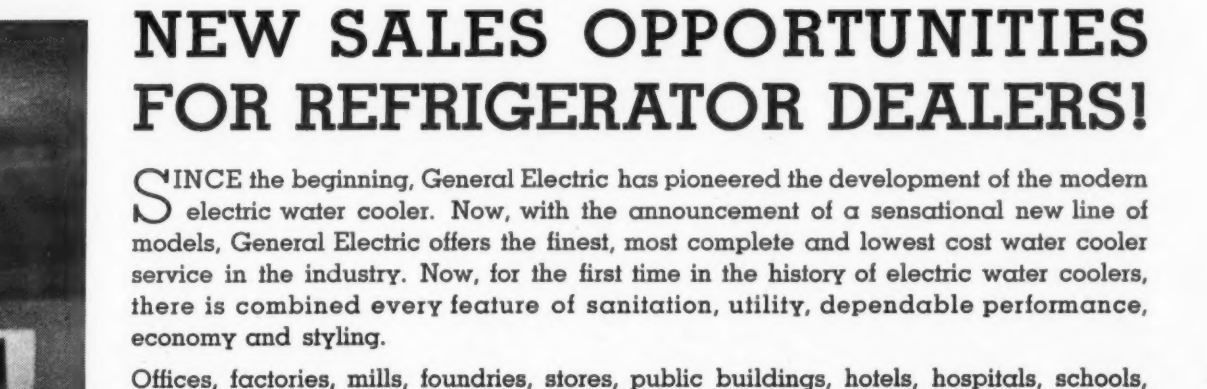
A TOUCH OF THE TOE MAKES THE WATER FLOW!

NEW SALES OPPORTUNITIES FOR REFRIGERATOR DEALERS!

SINCE the beginning, General Electric has pioneered the development of the modern electric water cooler. Now, with the announcement of a sensational new line of models, General Electric offers the finest, most complete and lowest cost water cooler service in the industry. Now, for the first time in the history of electric water coolers, there is combined every feature of sanitation, utility, dependable performance, economy and styling.

Offices, factories, mills, foundries, stores, public buildings, hotels, hospitals, schools, institutions—all are prospects for modern water cooler service—and now for every one there is a G-E Water Cooler to exactly fill the need. New features include the revolutionary new Foot Pedal Control; Sanitary Spigot and Bubbler Guards; Splash-proof Drain Basin; All-Steel Heat-proof, Freeze-proof, Dust-proof construction; Floating Power; Heat Interchanger; Trap-free Gravity Clean-out System; New Modern Styling.

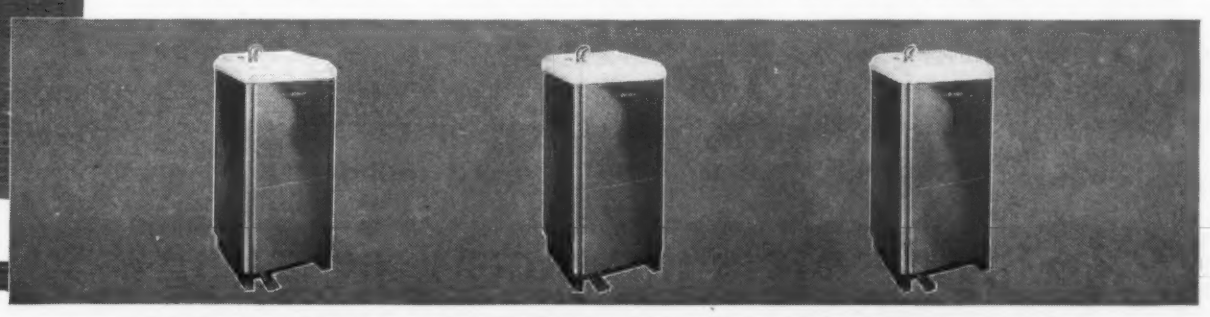
There is a *waiting market* for the sensational new line of G-E Water Coolers. It offers you a brand new profit opportunity! General Electric will show you how to contact the market, how to figure individual requirements, how to sell G-E water cooler service. Write or wire for details. General Electric Co., Commercial Refrigeration Division, Specialty Appliance Sales Department, Section DF41, Nela Park, Cleveland, Ohio.



G-E Model BM-21 Bottle Water Cooler
• Beautifully styled all-steel cabinet, rich bronze finish. Refrigerated storage compartment. Foot Pedal Control.

G-E Model DB-1 Bottle Water Cooler
• An outstanding value. Ideal for all-purpose use. Compact, efficient, economical. All-steel cabinet. Durable bronze finish.

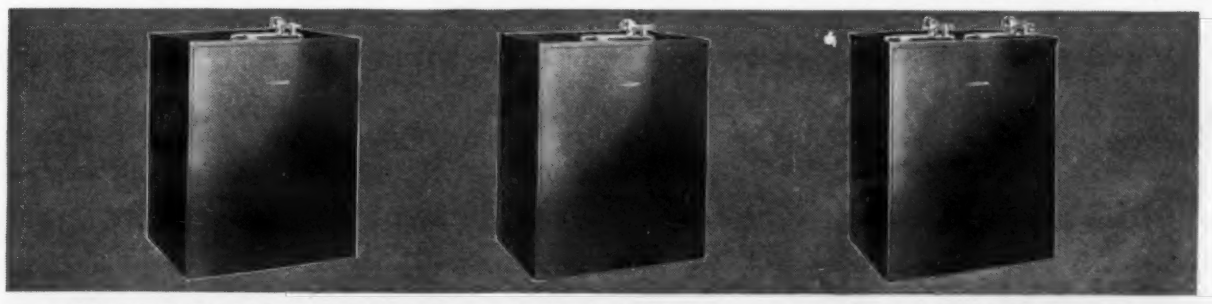
G-E Model RM-21 Pressure Water Cooler
• Distinguished styling. Chrome plated appointments. Refrigerated storage compartment. Foot Pedal Control.



G-E Model RM-51 Pressure Water Cooler
• Combines styling and utility with economy—a bubbler type for all-purpose use. Vitreous china top. Foot Pedal Control.

G-E Model RM-61 Pressure Water Cooler
• Ideal for general use in offices, mills, public buildings, etc. All-steel cabinet, sealed-in-steel insulation. Foot Pedal Control.

G-E Model RM-71 Pressure Water Cooler
• Extra large capacity. Amply powered for unusual demands. Heavy duty ¾ h.p. water-cooled condenser. Foot Pedal Control.



G-E Model KM-71 Industrial Type Cooler
• A heavy-duty cooler for severe industrial applications. Rugged, powerful. All-steel cabinet, durable green enamel finish.

G-E Model KM-73 Industrial Type Cooler
• Freeze-proof, heat-proof, dust-proof. Operates with equal year 'round efficiency in mill yard or blast furnace location.

G-E Model KM-74 Industrial Type Cooler
• Has double bubbler for serving large groups. Adaptable where racial conditions necessitate separate drinking water outlets.

A Revolutionary Development!

THE NEW G-E FOOT PEDAL CONTROL

A touch of the toe makes the water flow! Saves time when hands are full and minutes are precious. Sanitary—no chance for spread of contamination from soiled hands to clean hands, a constant menace with hand-operated valves. *Obsoletes* the push-button and hand valve. *Exclusive* with G-E Water Coolers. A revolutionary sales feature!

HOW TO SELL MORE REFRIGERATION IN 1935

KNAPP
Lists Eight Important Presentation Factors

(*Continued from Page 1, Column 4*)

To the editors the most satisfactory article submitted came from John Knapp, vice president in charge of sales for Norge. Mr. Knapp, conceded by many to be the industry's No. 1 sales manager, knows as much about the technique of selling refrigerators as any man in the business.

In addition, he has recourse to the facilities of Cramer-Krasselt's research organization, headed by G. P. Stedman, which has done such admirable work in analyzing both the consumer mind and dealer methods.

First to ascend the rostrum, then, is John Knapp. Built like a fullback, abounding in energy and emotional fire, sure of his facts and zealous in his efforts to get them across to his listeners, Mr. Knapp is one of the most effective speakers in the industry. Listen to what he has to say—and profit therefrom:

"How would I sell an electric refrigerator?"

Well, George, I don't believe the problem is so much one of learning to sell them as one of becoming more skillful in creating the desire and ability to buy them. We have had too much *salesmanship* and too little *buymanship*.

There is a vital difference between the two. The first resorts, too often, to a type of high pressure mesmerism and an emphasis upon price, which leaves the owner with the feeling that she has been "sold something' which doesn't fit her needs.

In fact, a recent Norge survey proved that over 30 per cent of all owners would have bought a larger model, were they purchasing again.

The second depends upon a sincere, educational portrayal of all of the facts, adjusted to the buyer's viewpoint, which establish the need, build a proved conclusion that the electric refrigerator in question is best able to answer that need, justify the ability of the product to finance itself and provide an easy buying method; all to the point of demonstrating to the prospect's judgment, independently arrived at, that she can no longer afford to be without the product. I repeat, there is a vital difference between *salesmanship* and *buymanship*. We need much more of the latter.

Learning from Vikings

I don't know a great deal about salesmanship, myself. But I have about 4,000 Norge Vikings throughout the country who have certainly won their spurs in this most honorable of professions. It isn't easy to become a Norge Viking. Not until a salesman has demonstrated by actual orders that he stands out head and shoulders from the crowd, does he gain membership and all the distinctive honorariums that make this one of the most coveted salesmanship honors.

Believe me, I am learning from these Norge Vikings. No kidding, they know how to sell.

A constant Norge policy is to build product and sales program to fit the desire of those who will use them. And Norge believes that selling tools are as distinctly a product for the sales organization as the product itself is to the consumer.

So our sales training is designed not only for salesmen, but by them. We try to give them what they want.

And we do this by calling on Norge Vikings to give us their successful lessons, created in face of the prospect, which we have made available to all enterprising Norge salesmen in a new sales training course which embodies the total of all the practical ideas on selling electric refrigerators that has been developed by 2,014 super-salesmen who have proved they are adept at the real and difficult art of buymanship—the art of creating the desire and ability to buy! So whatever I say is merely echoing what I have learned from them.

Eight Important Points

I have the analysis from 2,014 reports of these men before me. Studying them, you arrive at this inescapable conclusion—electric refrigerator sales are made whenever a salesman includes eight cardinal considerations within his presentation and gets a prospect's independent agreement to them.

Leave any one of the eight out, and the sale is endangered. Leave more than three of them out and the sale is lost. They are:

(1) Selling to the buyer's interests.
(2) Establishing the need.
(3) Selling the advantages of the particular product to answer that need distinctively.
(4) Proving all claims with irrefutable evidence.
(5) Justifying the purchase from the savings it creates.
(6) Demonstrating that the particular store is the best from which to buy.
(7) Demonstrating that the particular salesman is the best from which to buy.
(8) Providing an easy and convenient buying method.

Job of Education

There are many complicated systems of selling extant—some rely on judging the phrenology of the prospect, others on some complicated form of dual-suggestion. All these, to me, are hooey.

Selling is a simple, straightforward, sincere job of education. Whenever you can make what you have (which a prospect needs, whether he knows it or not) worth more to him than the money he must pay to possess it, you've done a fine selling job.

And it takes the combination of these eight concepts to which the prospect agrees to achieve a well-closed sale, everytime. Any time anyone tries to make his selling job more complicated, he is far from executing good *buymanship*.

Each of these eight are concepts of which the salesman must know a lot more about than he will ever talk of in front of the prospect. A long-winded sales talk proves one thing to me—the salesman doesn't know or believe in what he is talking about and thus has to cover up his ignorance in a hemorrhage of words.

Better Expression

But the chap who takes honors in the selling of electric refrigerators will constantly focus his attention on a better understanding and expression of these eight cardinal principles, being sure that he constantly improves in the power with which he delivers them.

There is, however, one great danger. We tell the old, old story so often that we fall into thinking the world has heard it as often as we. And we make the error of leaving out some vital point in establishing conviction on these eight points.

Just as soon as we do that or just as soon as the monotony of telling the old story over, makes us attempt to skip corners; just that soon are we riding for the fall.

My observation is that the most successful salesmen are those who can keep a keen enthusiasm for the reiteration of the old rather than those who try too hard for new ways to prove each of these cardinal principles.

The principles themselves need little explaining. We of Norge believe in conducting surveys to discover what the buyer's interests are.

Buying Factors

Of course, the viewpoint of an individual varies from that of the mass, and the conception of our obligation as a company, is to discover by engineering principles what the mass interest is; after which the individual salesman must become adept in diagnosing the particular prospect's desire.

So, lately, in our surveys we interviewed 23,012 women and found the factors that would most sway their buying decision to be:

(1) Economy.
(2) Convenience.
(3) Mechanism.
(4) Company Standing.
(5) Beauty.
(6) Dealer Reputation.

These held a total importance rating of 88.6 per cent; in other words, once having established the need, a salesman could feel that by sticking to these six points, he could win nine of each 10 competitive solicitations, providing the product he represented had demonstrable differences in all, and providing he was able to sell them.

Prove 1.43 Buying Reasons

It is interesting to know that when total factor mentions were divided by the 23,012 women answering, it was indicated that the average prospect can be swayed on this one point by proving 1.43 buying reasons which further simplifies the selling job.

Of course, this necessitates an expert ability of the salesman in relation to the six, and an ability to recognize the two or less which are most important to buyer interest.

These facts are clues to the observation that successful salesmanship is largely a matter of learning how to prove a few things well rather than to be able to talk meanderingly about a whole lot of things.

Someone has defined a poor salesman as one who comes to know more and more about less and less, until finally he comes to know practically everything about nothing at all. That is a thing to avoid—a simple story, well told is what wins.

The second principle of establishing the need is self-evident. But often, things become so old as to be neglected. Our surveys among 25,000 Norge owners, for example, proved that "health protection" was a high-ranking reason why they selected Norge.

Yet, I venture to say that many salesmen, feeling that the general need from the health angle has been so well sold, are failing to mention it in their presentations.

My conviction is that all markets are very volatile. The refrigeration buyers of today were relative youngsters back when the big barrage of general education to the need was the vogue.

How do we know that all of us are not slighting a new reference to these old appeals which an electric refrigerator makes to appetite, family affection, pleasure and hospitality, comfort and convenience, cleanliness and sanitation, fear, economy, pride of possession, and social distinction?

Need Must Be Established

Advertising and promotion focuses almost entirely on the vital differences of particular products. The salesman, however, must not neglect the establishment of the general need.

Naturally, each particular brand of electric refrigerators claims certain peculiar distinctions. In many ways all are similar and in particular ways, some are different. The average housewife has learned to be a comparative buyer, shrewdly interested in differences which make a certain refrigerator a better value bargain.

Thus, it is necessary to become adept in representing a product having such vital differences and learning how to sell them properly in order to establish that product as a better answer to the accepted need. This is, certainly, a very important third principle of successful refrigerator selling.

Within the past few years of bargain pricing and superlative presumptions, too many housewives have been betrayed by unsubstantiated claims. They are, after all, a part of that high pressure salesmanship that is aimed to mesmerize the buyer.

Proof of All Claims

Prospects have become chary. They want proof for all claims—and justly so. Proof selling which is backed by irrefutable evidence of use savings, based upon owner testimony or trial demonstration, is an essential of sincere and successful selling.

Without this fourth principle, I don't understand how in the world a salesman can get much of anywhere.

The outstanding ability of an electric refrigerator to finance itself is an all important fifth principle of successful salesmanship. There is 20 times the chance that a refrigerator prospect will be below the $2,000 income level as above. Such families want a great number of things and haven't the means to answer all desires.

Some products, like automobiles and radios, create a lot of enjoyment and convenience, but lead to no use-savings. They are drains on the family purse, and limit the buying ability for anything else.

Refrigeration Savings

Not so, electric refrigeration! Its use creates definite money savings from lowered operating costs compared with ice, ability to take advantage of quantity marketing, use of leftovers and elimination of food spoilage which make it definitely able to save more than it costs.

Norge owners, on the average, save up to $11 per month in this way, and we have many cases with unusually large families, that report savings above the $20 per month level. Actually, then, it costs more for the average family to be without Norge.

This justification of the purchase is all important because, after all, the majority of women want an electric refrigerator, and are looking to the salesman to provide them with the means to justify their buying it; something conclusive enough to sell to their husbands as the reason for their purchase.

The sixth and seventh of these cardinal principles are axiomatic. The dealer and salesmen are as much a part of the purchase as is the product itself. The honest merchant, with a clean and modern store, breeds that confidence which makes a woman sure that he will continue to extend considerate and reasonable service to her.

The average salesman, from our Norge surveys, is found to hold over 29 per cent of the purchasing consideration. These two things are, of course, up to the dealer and salesman themselves. If they haven't the principles, policies, or appearance of confidence, they cannot expect to win any sales except those which are driven to a decision through sheer price appeal, or from those who are bound to always make trouble.

Finally, there is this important eighth principle of providing an easy and convenient buying method. Price, itself, has been found in our surveys among 23,012 women, to be an insignificant factor in the buying decision, with a rating of only 0.2 per cent.

Women are no longer buying price. They are eager to buy the right sized model in relation to family needs.

(*Continued on Page 6, Column 1*)

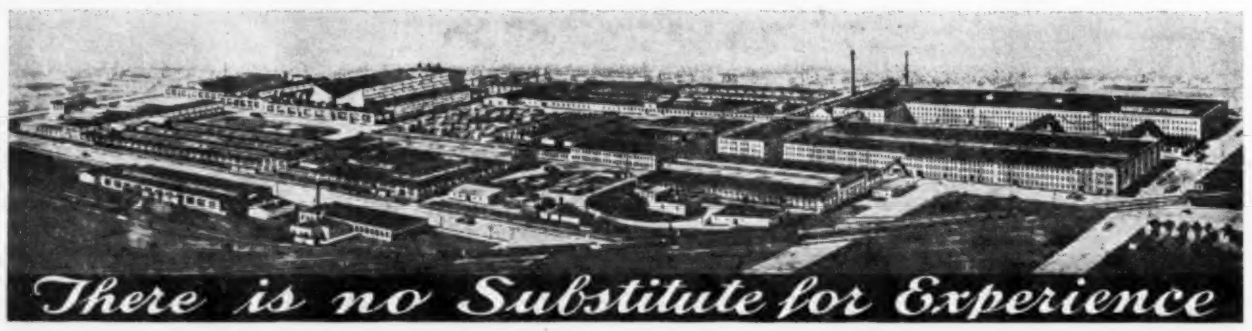
FORESIGHT

The alert watchfulness of an experienced manufacturer assures the Servel dealer that his line of Commercial Refrigeration and Air Conditioning will always be in step with his market. Founded at the very beginning of commercial refrigeration, Servel has consistently led the way in developing new and better equipment to meet the changing requirements of the field. Tomorrow, as well as today, Servel will offer up-to-date products to match current demands.

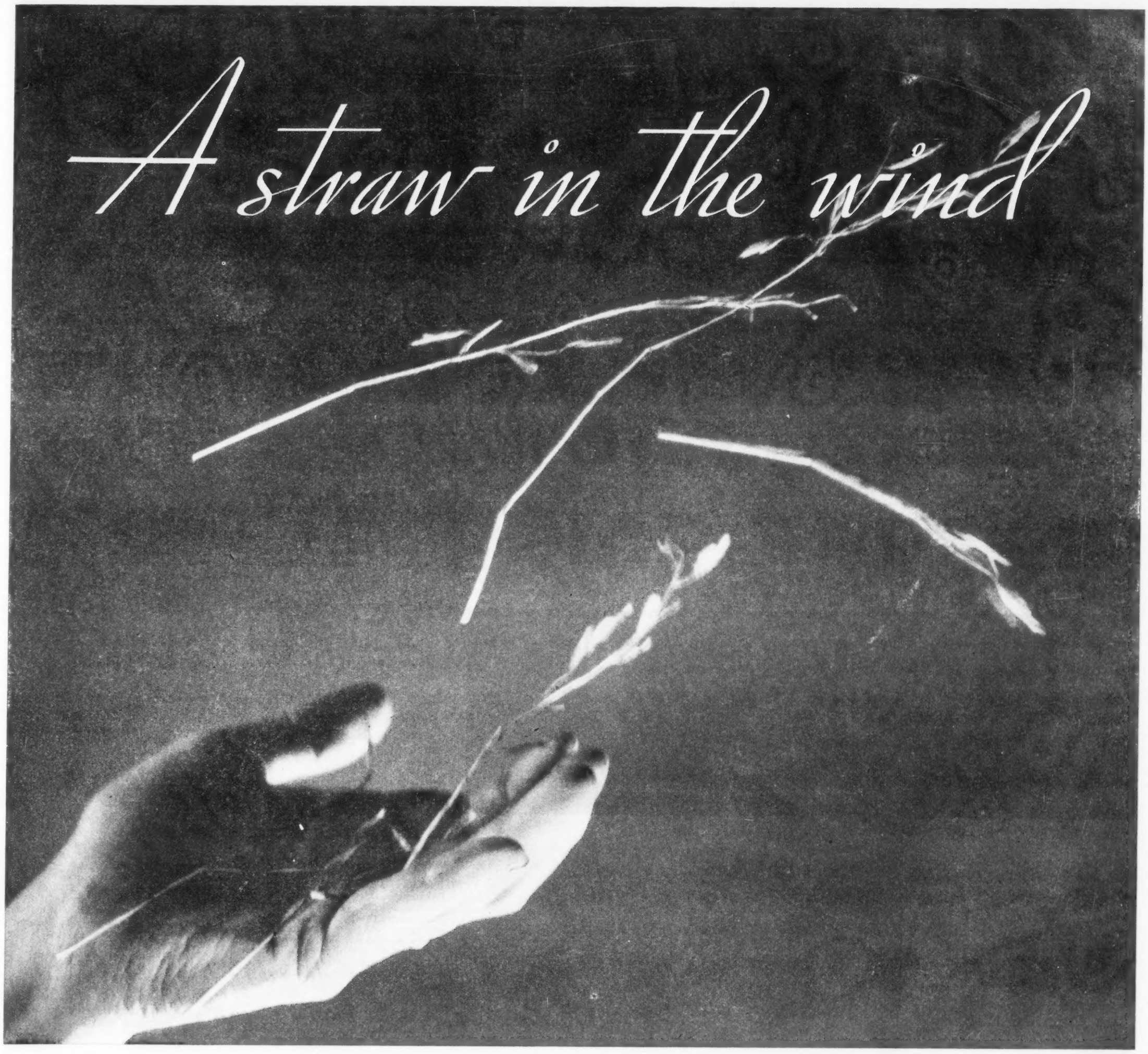
SERVEL
COMMERCIAL REFRIGERATION

SERVEL, INC. *Commercial Refrigeration Division* EVANSVILLE, IND.

This great modern 30-acre plant is the home of Servel Commercial Refrigeration and the world-famous Electrolux, the Servel Gas Refrigerator



A straw in the wind



Reports from major dealers in various parts of the country indicate that they are selling more than twice as many Frigidaires this year as they sold in the same period of 1934. Here is a straw in the wind that clearly indicates the direction of public preference—and the direction in which you should turn for real refrigeration profits in 1935.

Frigidaire '35

THE GENERAL MOTORS REFRIGERATOR

KNAPP

(*Continued from Page 4, Column 5*)

from which they can gain greatest use savings.

And they want a convenient buying method, at low finance charges, that will make it easy for them to finance the purchase from the savings it creates. Having justified the savings to be gained from intelligent use, these can be compared with the monthly instalment required, and if correctly selected, a refrigerator often saves more than its cost.

It actually helps the housewife buy other needed things which, because of the waste of not owning an electric refrigerator, absorb her spending power.

The finance plan is therefore, as much a part of creative selling as is any other element; and any manufacturer, interested in helping his dealers and salesmen produce customers, is duty bound to arrange a customer finance plan that will automatically provide an easy and convenient buying method.

Well, George, there you have it as briefly as I can digest so important a subject. Mark you, these are not my ideas, but rather they are the precipitate of all the important principles which an analysis of the reports of our 2,014 leading Norge Vikings report as the essentials.

The secret is in getting all of these eight combined within the presentation. Fledgelings and lazibones, who miss them, damage or ruin their chance to sell.

MILLER

Gives Ideas for Building Prospect List

Another effective "How-to-Sell" story is told by H. B. Miller of the Sanitary Electric Corp. It isn't long, but there's a useful suggestion in each sentence. We commend it highly.

Take it away, Mr. Miller:

As soon as your shipment of Sanitarys arrives and you have them nicely placed on your display floor, take stock of your prospects list and your outside selling organization.

If you haven't a prospect list start one at once.

Some local promotion—such as a home show display or frozen food show demonstration—will give you a good bunch of names to start off and additional prospects will of course develop as the sales work progresses.

If no promotion—as described above is available immediately, hire a girl with a pleasing telephone voice to call up your business friends and regular customers and announce your new 1935 models to them with a regular telephone solicitation outline which we will gladly suggest. The telephone canvasser will of course make note of the best prospects.

We advise as many good outside salesmen as possible. Every sales group should include one "closer" who acts as manager and assists all other members of the group with their more difficult sales. If possible the dealer himself should act as the "closer."

In selling the Sanitary line we feature the values in our medium and large deluxe models. These models have every worth while convenience and high quality feature and outstanding eye-appeal.

On account of our large production in our cabinet building department we are able to offer unusual values on the medium and larger sizes of deluxe models.

You have a tremendous advantage if you can convince the prospect that they should have a 6½ net cubic foot or larger deluxe model. Push our No. 700. It has all the features and is really the right size for the average family. The list price of this model is only $154.55 F.O.B., and if you want to meet the $139.50 price with this model we have no objections to your doing so on special sales, etc.

So—start your prospect list. Freshen it up occasionally with special promotions and keep it up to date. Get the best outside salesmen you can and work with them. Make them work too. Sell Sanitary deluxe capacity. Remember capacity appeals to every buyer. You have the merchandise, give it man power and volume sales are bound to result.

RICHARDSON

Suggests Display of Food Laden Shelvador

One of the men who is genuinely close to the distribution picture is Howard E. Richardson, assistant to the president in charge of sales, Crosley Radio Corp. Like Paul Jones of Fairbanks-Morse and John Ditzell of Stewart-Warner, Mr. Richardson is a former distributor.

Display is the theme of the Crosley message as presented by Mr. Richardson. His three enumerated precepts begin with the words "display," "use," and "show." Each is a verb denoting action, and each requires the salesman to do something.

Listen to his nutshell advice:

In our advice to dealers to help them sell more Crosley Shelvador electric refrigerators, the following points are basic:

1. Display the Shelvador in your window with the door open, and compartments and door filled with artificial food.

2. Use the window display featuring, "This much more in a Shelvador."

3. Show the prospect that Crosley Shelvador has everything a good refrigerator should have.

Many dealers are finding that these methods are resulting in tremendous sales increases because of this exclusive patented feature, which in connection with emphasis on the high quality materials used and the precision workmanship make Crosley an outstanding refrigerator from the standpoint of utility, convenience, beauty, trouble-free service and consumer dollar value.

Our sales and advertising presentations are founded on these sales points. Our dealers are instructed and aided in carrying out these sales policies in their local advertising and sales presentations. The most active cooperation in sales and advertising exists between the company, the distributors and dealers, and the complete sales story would be the description of this program in detail.

TAUFENBACH

Stages a Sample Gibson Demonstration

L. E. Taufenbach, sales manager for Gibson, gives you a "canned sales talk" complete in every detail. That should be valuable indeed—not only to every Gibson dealer, but to others as well. His product story can be revised to fit other refrigerators and their features. Its form and manner are excellent.

Salesmen should note that the presentation is made in terms of the prospect and his needs, not in terms of the product and the salesman's wants.

There are more ways than one of removing the epidermis from a domesticated feline, and Mr. Taufenbach has found a clever means, we think, of getting Electric Refrigeration News subscribers to read about Gibson's special features.

Subscribers, Mr. Taufenbach:

"What's that, Pop?"

"Just to make you ask questions, sonny."

Fortunately, the inquisitiveness of youth remains with us throughout life. We have the curiosity habit from the cradle to the grave.

I am not going to say that Gibson designed a refrigerator just to make people ask questions, but I will state emphatically that intelligent foresight and courage contributed to the introduction of a feature in the 1935 Gibson line which has literally stopped traffic.

Stand in the refrigeration sales department of any reputable store where the new model Gibson refrigerators are on display along with other lines and you will very quickly verify the statements I am about to make.

Eye Appeal

A customer appears on the scene and casts a critical eye on the array of gleaming white boxes on display. There are several models which immediately impel attention because of the beautifully balanced, black and white design. Striking appearance and curiosity work together at this point to draw our customer for a closer inspection. Something new . . . something different! What is it? Who makes it?

The brightly polished foot lever set in the trim black porcelain base beckons and with a slight touch of the foot . . . Prestoe! the door swings open revealing an interior entirely different from anything ever seen before in an electric refrigerator.

Instead of an oval shaped affair, so common in other models the customer has investigated, there is a trim, flat shelf at the top of the box with a brightly polished plate embossed Gibson Monounit!

What a grand opportunity for the salesman! Here is a customer actually asking him to talk about his product and it is quite evident that his answers will reach eager ears. What an inexhaustible supply of answers he has available!

"Certainly, Madam, I will be delighted to tell you something about this clever new refrigerator. It is manufactured by probably the oldest manufacturer of refrigeration products in business today. Nearly four million Gibson refrigerators have given consumer satisfaction over a period of 59 years. This product, Madam, is entirely manufactured by the Gibson Electric Refrigerator Corp. It is not one of the so-called 'assembled' refrigerators which have been exploited.

"Let me give you briefly the main features of this product starting with the handy shoulder high buffet top. This very usable area is available on most refrigerators, of course, but on the Gibson it is probably more convenient because the box is not as high as others.

Control Switch

"Conveniently set in the inside of the door is the control switch which regulates your freezing speed and incorporates the defrosting control. You will note that there are four positions warmer and eight positions colder from the No. 1, or normal position. This flexibility enables you to set the control at any point either warmer or colder to suit your personal desire.

"When you move the knob to the point marked 'defrosting,' the interior temperature of your cabinet will remain below the safety point of 50° at all times during the defrosting cycle. If you neglect to turn the control back to No. 1 after defrosting the box, you need have no fear that there will be any food spoilage.

Freez'r Shelf

"Now, undoubtedly the most outstanding feature in this Gibson new mode refrigerator is the Magic Freez'r Shelf. It is so simple and so practical that you probably wonder why it has not been used before. You know that you cook your food on a flat surface which radiates heat . . . your stove. Then, why is it not logical to freeze or chill foods and liquids on a flat area which radiates cold?

"As you undoubtedly know, heat is absorbed through contact with the chilled surface just as heat from the stove is absorbed through the cooking utensil and you will note that all the trays on this type of evaporator are in direct contact with the Freez'r Shelf. Consequently you get a greater degree of efficiency than you would obtain if the same shelves were suspended as in the common type of evaporator.

Other Uses for Shelf

"I'll tell you of a few of the dozens of other uses of which this Freez'r Shelf is capable besides freezing ice cubes. Have you ever tasted steak after it has been slightly frozen on both sides and then dropped into a searing hot pan? The freezing process seems to seal in all the flavor and juices and makes the meat much more tender. Large molds or trays of jellies, ice creams can be placed on this shelf. If you make fudge and wish to cool it quickly, just put the whole pan on the shelf.

"If you are planning a cocktail party, put your cocktail glasses on this shelf and they will be nicely chilled and frosty in a very short time. The uses of this shelf are simply innumerable; but, there is another feature which is not at first apparent to you.

Tray Release

"If you have had experience with electric refrigerators you know that one of the greatest difficulties is the sticking of ice cube trays. Now, when these trays are all frozen solid you simply place your hand slightly on this embossed nameplate and tilt upward. Just like magic all the trays are instantly released. No gadgets of any kind are necessary . . . the tray release is always ready to do its work.

"I need not call your attention to the fact that you have a greater ice capacity in this refrigerator than in any other refrigerator of equal size. This shelf is capable of freezing from ten to fifteen pounds of ice at one time. Normally you can freeze three complete groups of trays in one day, so you actually have an ice making machine. Imagine 35 to 45 pounds of ice a day!

"Gibson calls this shelf the Magic Freez'r Shelf and it truly is magic. Every day, customers tell us of new uses for this practical chilling shelf. I have not mentioned the fact that game or fish can be frozen solid and kept for a long period of time.

Air Circulation

"There is another important point to consider. Other refrigerators dry out the foods in the provision compartment; but, due to a more efficient circulation of air inside the cabinet, the location of the Freez'r Shelf and its much large area, you will find that the provision compartment in this Gibson can actually be called air conditioned in a true sense of the word. This is something for which the industry has been striving for years and it has at last been made possible through this Magic Freez'r Shelf.

"You will note the convenient location of the bottle area in the center of the box and the two chilling trays on either side. Commonly a dish is placed under the coil type of evaporator to catch the water when defrosting, but it is not in a position to be usable during the greater part of the operation of the box, that is when you are not defrosting.

"The chilling trays in this Gibson refrigerator are located in such a position that you can use this space for table cuts of butter, for holding ice cubes and for desserts which do not require the full chilling of the Freez'r Shelf.

"You will notice that the light is neatly built into the cabinet and is covered with a frosted glass, which shades a soft and ample light through-

(*Continued on Page 8, Column 1*)

"COLD FACTS"

No. 3

Flexible Rubber Trays and Grids help salesmen "bust" their quotas. INSIST that all models of the refrigerator you sell come factory-equipped. Write to your manufacturer, or direct to us. The Inland Mfg. Co., Dayton, O.

Salesman Brown: "How the dickens do you dig up so many prospects for our refrigerator? You must wear 7-league boots!"
Salesman White: "Not at all! I give each prospect I sell an extra flexible rubber tray in return for the names of 5 of her friends who do not own automatic refrigerators!"

Flexible Rubber Trays and Grids

immediately brand a refrigerator as being

UP-TO-DATE

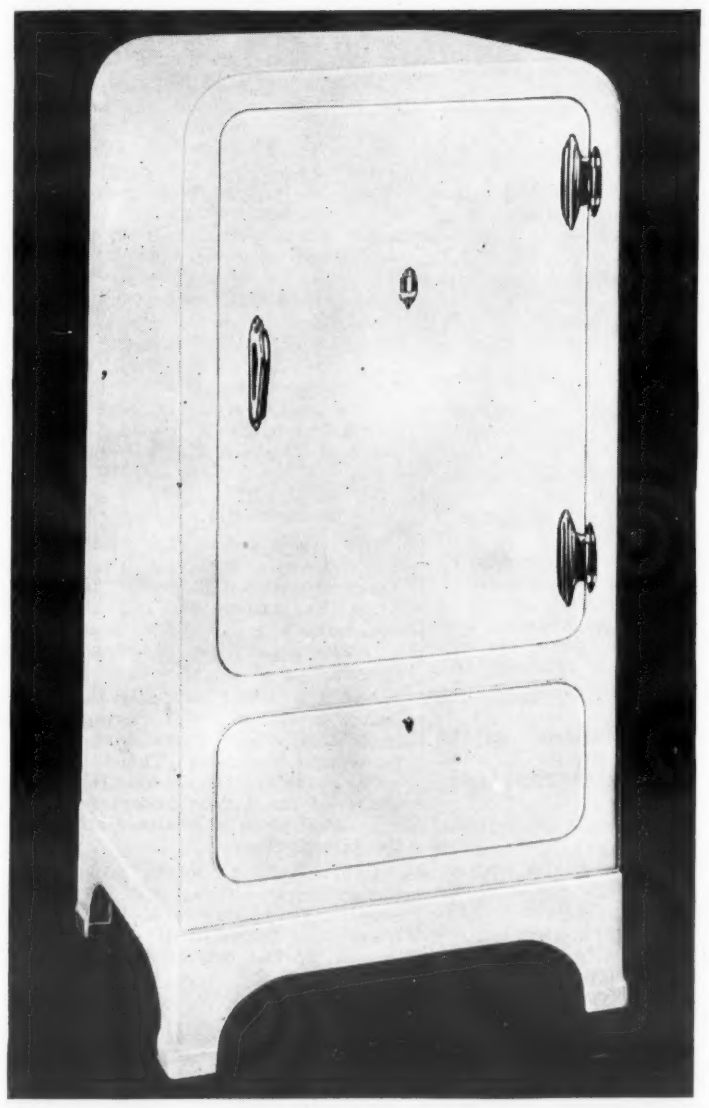
Now! More "DYNAMITE" For GRUNOW Dealers!

✓ *We gave you* **BEAUTY** *that changed refrigerator styling overnight*

✓ *We gave you* **SAFE CARRENE**—*the industry's only exclusive feature*

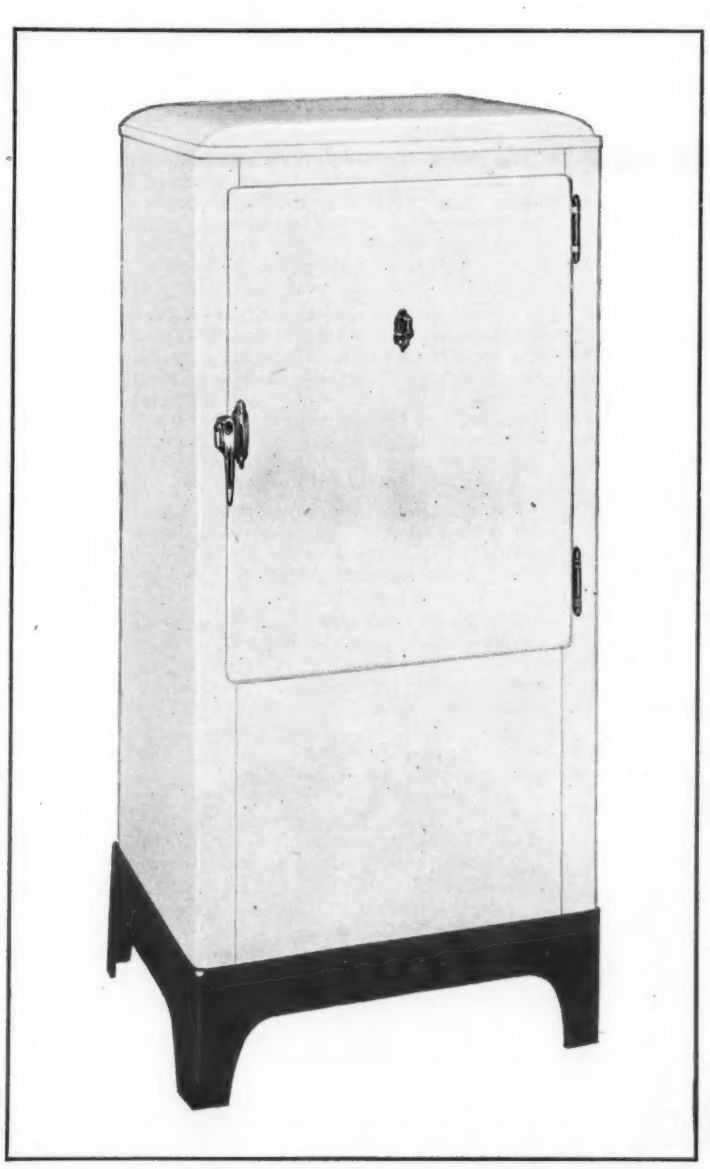
✓ *We gave you the* **5-YEAR PROTECTION PLAN** *that ends all question of dependability*

Now We Give You PRICE APPEAL Buyers Can't Overlook



★GRUNOW MODEL 67 D—*A big De Luxe refrigerator with 6.7 cubic feet food capacity, 14.3 square feet shelf area, 160 ice cubes. Has ice tray release, automatic light, and all other Grunow De Luxe features.* **$200** *F. O. B. Factory Federal tax paid*

These are just three of the complete Grunow line with all the features, all the sizes and all the prices you need to sell anyone!



★GRUNOW MODEL 60 S—*Large enough for a good-sized family! Almost 6 cubic feet of capacity—10.5 square feet shelf area. Automatic interior light and many other features.* **$155** *F. O. B. Factory Federal tax paid*

NOW—more than ever—Grunow leads the parade! Such spectacular values as the three shown on this page give you the last sales wallop you need against the toughest competition in any town. Just look! A really big box—almost 6 cubic feet, not 4 or 4½ . . . at $155 as leader for a complete line. *Plus* the spectacular CARRENE safety story—*plus* optional 5-Year Protection on the Grunow unit—*plus* real quality features—*plus* the most smashing advertising in the industry hitting in full pages every two weeks! Man! Of course you can sell 'em! And every day you wait is dollars lost. So phone, wire or write now to your distributor.

★GRUNOW MODEL 82 D—*A huge, spacious De Luxe model with 8.2 cubic feet capacity, almost 16 square feet shelf area, 192 ice cubes. Ice tray release, new push-or-pull latch and all other De Luxe features.* **$230** *F. O. B. Factory Federal tax paid*

Grunow

SUPER-SAFE REFRIGERATOR

PRODUCT OF GENERAL HOUSEHOLD UTILITIES COMPANY

2650 NORTH CRAWFORD AVENUE, CHICAGO

TAUFENBACH

(*Continued from Page 6, Column 5*)

out the box when the door is opened.

"There is a handy Util-A-Rac on the door which will accommodate all the small items which you will normally find practical to put in such a space.

"A section of the bottom shelf can be taken out to provide a greater bottle storage space for watermelons and any large objects.

"The entire arrangement of the interior, I think you will agree, is quite different and quite practical. In fact, it is so sensibly arranged that the Gibson Co. terms it 'balanced utility' and by that they mean that every part of this box is so readily accessible that you do not require a rearrangement shelf.

Spacing of Shelves

"Gibson has had probably more experience than any other manufacturer in designing the interior of refrigera- in the kitchen, and you will never find shelves in Gibson boxes spaced so closely together that you cannot use them freely.

"And now here is another feature which was at first not apparent to you. Ordinarily the unit compartment is in this bottom section of the box, but due to the unusual compactness of the Gibson unit we have additional usable space for a Vegetable Bin. It is called the Veg-a-dor and is divided into two compartments.

"The foot door opener is, of course, a handy device when you come up to the refrigerator with your arms full of food. It is interesting to know that Gibson used this type of foot door opener on ice boxes nearly 20 years ago.

2-Cylinder Compressor

"I might just casually mention that the unit which provides the power for this Gibson refrigerator is equipped with a twin-cylinder compressor and yet it has only three moving parts. There are no seals or stuffing boxes to leak and no belts or pulleys to slip or cause service trouble.

"The refrigerant used is the same as that used by 90 per cent of the manufacturers in the industry and it is a safe and practical liquid."

And that "Straight Line Selling Talk" is selling Gibson today! That and the Magic Freez'r Shelf.

The public is interested in the economy of electric refrigeration and its many convenience features. The public is interested in the price, appearance and value of a product. More than ever before, the public is influenced by the recommendation of the local retailer in whom they have personal contact and confidence.

Gibson dealers everywhere are recommending Gibson simply because the line for 1935 has everything . . . eye appeal, outstanding and exclusive features, low price commensurate with quality and better than average trade discounts.

As for service . . .the Gibson hermetic "MonoUnit" now is guaranteed against customer replacement cost for a period of five years at an additional charge of $5.00. The recent announcement of the four year extension contract by Gibson and the common sense method of establishing and maintaining this guarantee has created a sensation in the industry.

Let me ask then . . . . with a line like Gibson, so packed with features which literally impel the customer to ask questions . . . . with price, value and a discount outstanding against all competition and a 59 year old refrigerator manufacturer behind the product . . . . is there any reason to wonder why Gibson is making such tremendous progress in 1935?

DANLEY

Explains Promotion Plans For Different Prospects

Cagey and wide-awake to all possibilities of the situation, Manager P. Y. Danley of the Westinghouse refrigeration department talks more to other dealers than he does to his own.

"Mr. Westinghouse Dealer," he says, looking over at the General Electric, Norge, and Crosley sections of the convention, gesturing toward the Frigidaire, Kelvinator, and Stewart-Warner contingents, and shouting loud enough for the Fairbanks-Morse, Sparton, and Grunow crowds to hear, "we've given you a fine product and a remarkable merchandising plan. All you have to do is follow the plan to sell the product."

He starts right off by assuming that the salesman knows all about specialty selling. (Westinghouse must get pretty good men, Mr. Danley, if you don't have to teach them much about their profession.) Then it's a matter of getting the proper selling tools into the salesman's hands. Westinghouse has done that, he says, and he enumerates the list of tools in the kit.

Also he says a few words about the product—not exactly as an afterthought, but just in case you-all need reminding. (If we had a Dirty Dig Department, we might observe that readers of the advertisements in Electric Refrigeration News probably do need a little reminding that Westinghouse has a refrigerator for sale!)

In mapping out a schedule to increase distribution we, in the refrigeration department, have felt that the product should be the first, or major consideration. In other words, the promotion and advertising should be dependent on the very best product we could offer.

We operate on the time-proved assumption that quality begets confidence, and once confidence is instilled in the mind of the potential consumer, the first step has been taken to insure greater distribution.

Sales during the first 90 days of 1935 have more than exceeded our anticipation, so that we are sure we are on the right track as far as product is concerned. That is the major contribution to the distributors and the dealers the manufacturer must make toward the ultimate goal of increased sales for his organization.

After the product, assuming that it is such that it will provide the dealer and his salesmen a real and distinct selling advantage, we consider the mechanics of presenting our story through the mediums of advertising, special activities, sales promotion, and verbal demonstrations.

Classes of Prospects

For the purpose of clarification, let us consider the prospects under two broad or general headings of:

1. INSIDE PROSPECTS

(a) Prospects who will be attracted into the store by various means, and who will receive their initial introduction to the Westinghouse refrigerator in the dealer's store.

2. OUTSIDE PROSPECTS

(b) Prospects who are obtained by cold canvass, telephone canvass, direct mail, etc.

Accordingly we have built our advertising and sales promotion activities so that the dealer and his salesmen will be provided with the information and materials they will need to take care of both types of prospects.

It is our contention, that, if a salesman has the fundamental attributes of selling, he will be in a most strategic position by having the manufacturer's cooperation through the selling tools given him.

Store Promotion Service

So, for the interest of the inside prospect we have devised new means of store identification, new signs that are especially appealing; we have added two complete window display services to our already existing supply of this type of display.

In addition, we have set up new store displays, and have provided material for the various informal spring openings or special activities the dealer may wish to use to interest the passer-by.

We have devised cooking school demonstrations, and have planned other store activities that will bring the prospect into the retailer's place of business where he may present his story on the Westinghouse refrigerator.

Sound moving pictures, dramatic demonstrations for the salesmen, skits, and special displays—all of these sales vehicles have been carefully worked out to put the salesman and his organization in a strategic position to sell more electric refrigerators in 1935.

For Outside Prospects

For the outside prospects we have the most elaborate and comprehensive national and local advertising program ever attempted by our refrigeration department.

Telephone canvasses, and a new owner's club plan that is "clicking" in every section of the country, are doing their bit in the creation of additional sales.

New selling portfolios, new films, more clever direct mail campaigns, and dramatic demonstration kits have been included in this comprehensive list of selling aids we are offering our retail organization so that they can built up their dollar volume during the 12 months of 1935.

These sales vehicles are a most vital part of a general plan to increase the national distribution, and to develop and create additional prospects for the "streamline" refrigerator.

We believe that if the retailer avails himself of the materials we are offering, he will be in a position to present his story in a most convincing and compelling manner. It is through the liberal use of all of these sales helps that he will be able to increase the volume of his business.

FHA Program

We urge, too, that the dealer take an interest in the FHA program. We believe that the FHA presents him with a most excellent opportunity to make sales where, without the aid of this finance, it has not been possible in the past.

Every home owner, or every person who has an equity in a home, is in a position now to avail himself of the opportunity to use this special financing; and, therefore, is eligible to hear the story of the Westinghouse electric refrigerator.

It is through the medium of the FHA that a vast market is being created, and the electric refrigerator has a just place in the considerations of those who take advantage of this national project.

My admonition is, to the retailer and salesman who want to increase their dollar volume, and who want to increase their unit sales—first, select the very best product you can get, and then be sure that that product is backed by the most carefully and intelligently planned advertising and sales promotion programs possible.

Practically every agency has the opportunity to merchandise an electric refrigerator, but just to be the agent for such a product will not bring the desired results.

We are most gratified to be able to report that this program we have laid out for the merchandising of electric refrigerators has been most successful for the first three months of this year. We have enjoyed the greatest sales volume we have ever had in a corresponding period.

'Streamline' Refrigerator

In offering the new "streamline" refrigerators we feel that we have many features to talk about, and that we have provided the retailer and his salesmen with real weapons.

In other words, we have offered the retailer and his salesmen a real opportunity to make some money with a refrigerator that will encounter a minimum of sales resistance as a result of its quality, beauty, and exclusive features. Any salesman can go over the following features and make a definite impression on the prospect.

It is our recommendation that the salesman recite the merits of each one of these features in every presentation he makes.

Beauty may not mean everything, but it is nice to have a piece of equipment in the home, the appearance of which will always bring its owner a glow of pride. We have retained the broom high base feature so that the housewife can sweep under it easily. This feature aids in heightening the "skyscraper" effect that is obtaincd by its exterior design.

The door is equipped with a Button-Touch Latch. The slightest pressure, and, "Voila!" the door is opened. The latch is sufficiently high so that it is out of the reach of small children who might be inclined to experiment.

Modern Hardware

The hardware, of course, is in keeping with the general modern design, and adds materially to the entire outside appearance. The dial temperature control, with its seven-point temperature selector, is in a convenient position, and our all-steel construction is a feature of which we are proud and use to considerable advantage, as it is a distinct selling feature.

Of course, the primary reason for the refrigerator is adequate storage space, with as many sanitary and time-saving features as possible.

We emphasize the seamless porcelain construction of the food compartment, and please the housewife with round corners and acid-resisting porcelain so that the cleaning or spilling nuisance is no longer a liability. Wide, flat ribbon steel shelves also aid materially in eliminating spillage accidents.

Revolving Shelf

And now, an exclusive Westinghouse feature. This revolving shelf makes everything in the food compartment easily accessible and, in addition, adds tall bottle space that is at a premium in many refrigerators.

A touch of the finger and the shelf swings out, bringing every article of food within easy reach not only for that shelf, but for the shelf beneath. A clever contrivance locks the shelf in place when it is not in use, and the shelf is firmly anchored by a cantilever construction that makes for great strength and rigidity.

Another feature, the Handy Tray on the door, provides the salesman with one more exclusive selling point to talk about. This allows the housewife to rearrange some of the food items on the shelves easily and quickly, or if she wishes to take some of the items out of the refrigerator and carry them to some distant point, the tray is easily removable and can be used as a carrying and serving tray.

We have what we are pleased to call an "ace in our sleeve," the Eject-O-Cube tray. One full-sized, zero-cold, ice cube—or the whole trayful—are quickly and easily secured by simply lifting two arms or levers that break the seal between the cubes and the tray.

Hermetically Sealed Unit

The trays are made of aluminum castings, so that large, generous ice cubes are frozen in record time, and when they are needed it is no longer necessary to go to the sink and make a major operation of securing the required number.

And I wouldn't be doing the refrigerator justice if I didn't bring out the hermetically sealed unit and five-year protection features. These two features alone are responsible for a large share of the public acceptance given the Westinghouse refrigerator since its introduction.

Other selling points include the Triple Service Tray for frozen desserts; the Handy-Jack ice tray release; the forced-draft cooling which speeds up the condensing action and helps cool the unit motor; positive

(*Continued on Page 10, Column 1*)

'All Eyes on Westinghouse'

The newest Westinghouse window display features a refrigerator, flanked by a cardboard rainbow reading "All Eyes on Westinghouse—the Refrigerator for the Streamline Age." A mechanical Scottie wags his tail as he looks up at the refrigerator. The girl is not standard equipment.

MODELS that Completely FILL the BILL!

The policy of concentrating on four sizes, (4.5; 5.5; 6.6; and 8.8 cu. ft. net) is planned so that the Copeland distributor may supply 98% of popular demand. His cabinet stock turns rapidly giving him a greater percentage of profit than if he had *any* slow-moving items.

The 1935 Copeland Domestic line is a money-maker. Sized, styled, engineered, priced and discounted RIGHT, it is quickly sold.

COPELAND COMMERCIAL CONDENSING UNITS

The year-round business of Commercial Refrigeration is completely covered by the range of sizes (22 in all) of Copeland units whose performance in the most strenuous service extending over periods of years produces repeat orders for every business day.

See Copeland *now* for details of its profit-making distributing franchise in exclusive territories.

COPELAND REFRIGERATION CORP.

Manufacturers of a complete line of Household and Commercial Refrigeration

Holden Avenue at Lincoln Detroit, Mich.

Copeland

DEPENDABLE *ELECTRIC* REFRIGERATION

REFRIGERATOR FRUIT DISPLAY

Durable composition Fruits, Vegetables, Meats, Fowl, etc. Natural colors, very realistic. Send for sample set of 28 pieces . . $6.25

Display Kits packed to your individual requirements.

Roman Art Co., Inc.
2700-6 Locust Blvd.
St. Louis, Mo.

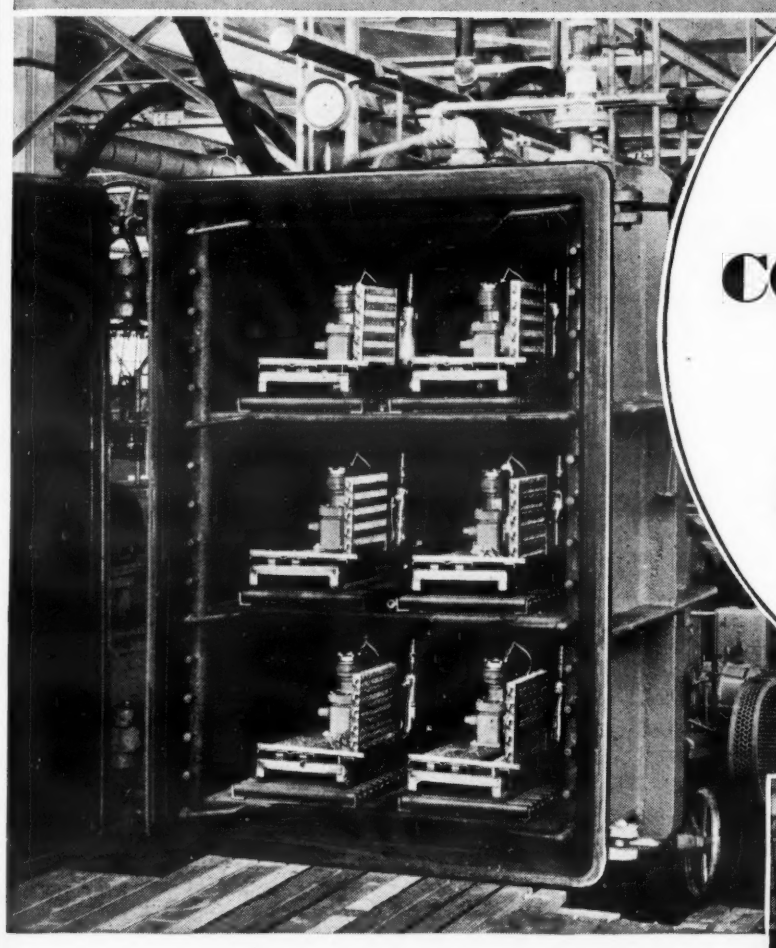
The Matheson Co

EAST RUTHERFORD N.J.

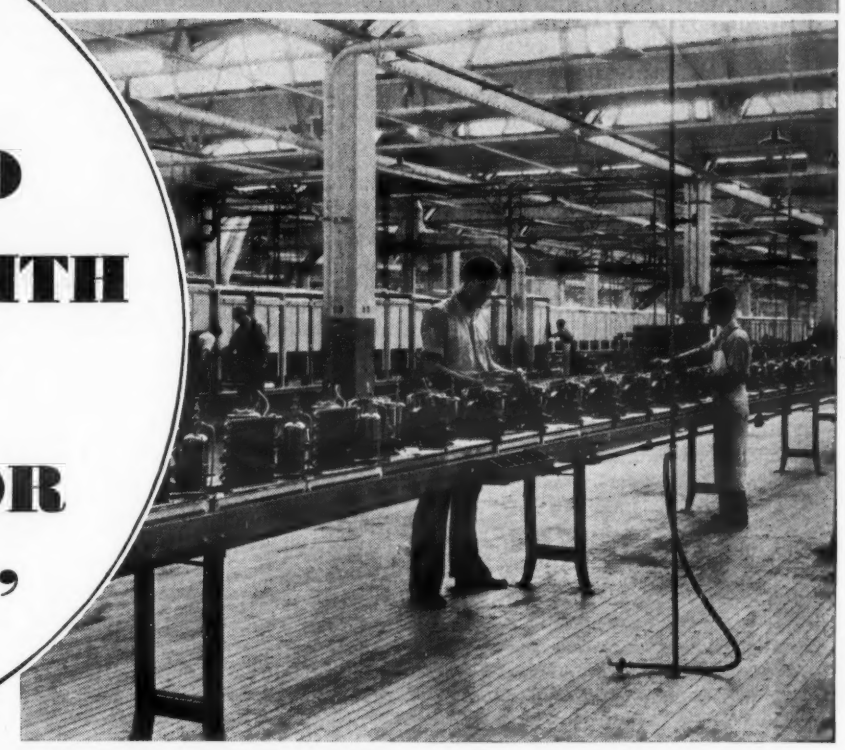
SULFUR DIOXIDE
METHYL CHLORIDE
ISOBUTANE
ETHYL CHLORIDE
AMMONIA
CARBON DIOXIDE
REFRIGERATOR OILS

METROPOLITAN STORE
178 MARTINE AVE
WHITE PLAINS, N.Y.

ATWATER KENT REFRIGERATOR



"ASK AN ENGINEER TO COMPARE IT WITH THE FINEST REFRIGERATOR HE KNOWS"



YOU can be sure of one thing. Atwater Kent is now offering the finest refrigerator that skilled engineers know how to build. After months of design and test comes a refrigerator perfected in every detail, whether hidden or seen, and as lasting as fine materials can make it. This excellence is as quickly recognized by women who buy it as it is by engineers who can tell craftsmanship at a glance. The name of ATWATER KENT will continue to stand for unusual quality.

We invite you to inspect the new Atwater Kent Refrigerators. For further information, address Atwater Kent Manufacturing Company, A. Atwater Kent, President, Philadelphia, Pa.

(*above*) **PROGRESSIVE ASSEMBLY OF** compressor units in the line production of the Atwater Kent Refrigerator.

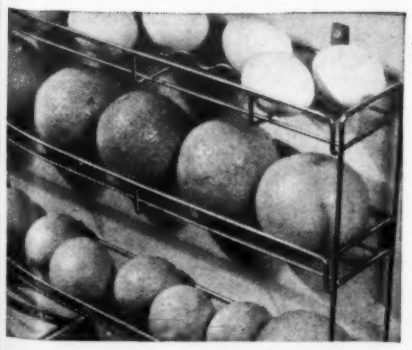
•

(*center*) **PUTTING ON THE FINISHING TOUCHES.** Workmen on one of the assembly lines making final adjustments as the refrigerators move toward the testing rooms.

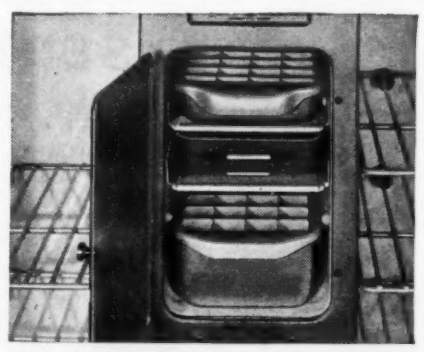
•

(*at left*) **DRY AS THE SAHARA HERE.** One of the dehydrating ovens in the great refrigerator plant in Philadelphia. Here compressor units are dried under vacuum and heat, eliminating every trace of moisture from the system.

ALL *the labor-saving devices . .* ALL *the conveniences . . are combined in an* ATWATER KENT

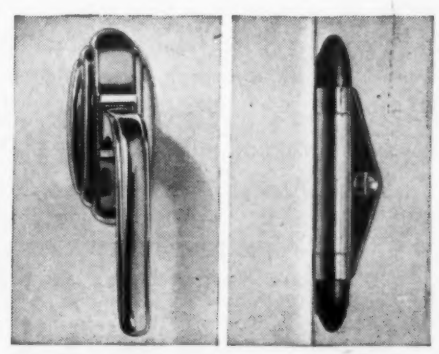


BUILT-IN RACKS on door make more room for small fruits, tomatoes, eggs, cheese, and give easy access to other shelves.

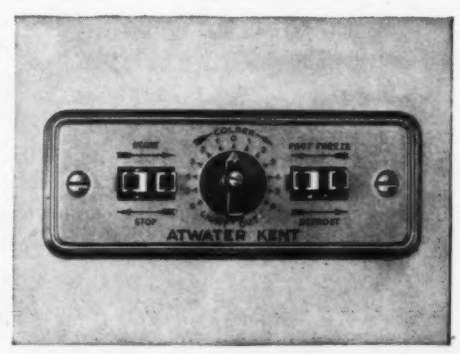


CENTER FREEZE UNIT location. Double-depth tray for desserts. Rubber tray. No-stick tray release. Unit all porcelain encased.

EXTRA SPACE FOR tall bottles by removing a shelf section. Plenty of room when needed for large roasts, turkeys, etc.



CHROMIUM FINISHED hardware. Automatic lighting. All seamless porcelain inside. Specially designed easy-opening door latch.



12-POINT COLD CONTROL gives 12 different temperature settings. Automatic starting without resetting after defrosting is complete.

ATWATER KENT MANUFACTURING COMPANY • A. ATWATER KENT, PRESIDENT • PHILADELPHIA, PA.

DANLEY

(*Continued from Page 8, Column 5*)

lubrication supplied by a most efficient oil distributing system; unusually quiet operation through improved unit and special type baffle; Built-in Watchman thermostat, another feature exclusive with Westinghouse to protect the motor and unit against damage when unusual conditions occur on the electric lines; over-size froster; and unusually thick insulation.

We take a great deal of pride in demonstrating our new line, as we have found that it is the most effective way in which to impress a prospect. The salesman can give a dramatic demonstration with this new "streamline" refrigerator that is convincing, dignified, and impressive; and a demonstration, we feel, will outweigh a silver tongue or a carload of merchandising tricks.

We have, nevertheless, devised spectacular contests and stimulatory campaigns to heighten the retail salesmen's interest so that he will go out and do a better job; and we have armed these Westinghouse refrigerator salesmen with every weapon we have at our command.

SWEENEY

Enumerates Promotional Plans to Help Salesmen

One of the swellest guys we know is "Mike" Sweeney of General Electric. "Mike" is extraordinarily popular with his organization, and one reason is that he gives this organization its collective head. He is, first of all, a good picker. And, being able to associate with himself a bunch of winners, he can afford to give them their heads.

If this big, hearty, red-headed Irisher were a football coach—and he'd probably make a dandy—he'd get the best of equipment, pass it out to a fine, brawny set of lads, blow up the ball, and let 'em go to it. Put differently, he is not the military type of sales executive.

In his message on this All-Industry Sales Convention program, G-E's Mr. Sweeney spends much of his time telling why business should be better this year—and all his reasons seem valid, except possibly his reliance on the Federal Housing Administration (see editorial on page 14 of this issue).

He also tells modestly what General Electric is doing to help promote refrigeration sales—and that, as you can see for yourself, is plenty.

Gentlemen, it gives me great pleasure to present my friend and fellow barber-shop-quartet harmonizer, A. M. Sweeney:

If present indications are a criterion, General Electric salesmen and dealers have started on the biggest sales year in history.

We base that statement, not on any desire to ballyhoo, but upon actual sales reports for the first three months of 1935. These reports without exception show in cold figures that General Electric refrigerator sales are far ahead of those for the corresponding period of previous years.

Moreover, not since the so-called depression started has there been such a feeling of optimism and sales enthusiasm as is found among our distributors and their sales forces in the field. Nineteen thirty-five not only is going to be a good year, but the best year in electric refrigeration sales. We believe that statement will hold good, too, for electric ranges, electric dishwashers, and other electric home appliances.

14 Models in Line

This year we have left nothing undone to help the man on the sales firing line to get more business. First, and most important, we have given him the most complete line in our history. We are producing a total of 14 models of General Electric refrigerators—truly a size, style, and model to fit the needs and desires of every family and every income.

There is the Liftop model, for the prospect in the lower income bracket. It's low-priced and efficient and will hold all the food required for a family of four. It is produced to appeal to a vast market—those who have gone without refrigeration of any kind, or those who heretofore have depended upon old-fashioned, unsatisfactory and expensive refrigeration.

Apartment House Box

This year, too, we have brought out the 4-cubic foot Monitor Top model, designed largely for apartment house use. For those to whom modern styling appears to be of prime importance, there is the G-E Flatop in various sizes; and for those who look upon the G-E Monitor Top refrigerator as the last word in service and dependability the salesman can offer a variety of sizes with the latest of features.

All of General Electric's 14 domestic refrigerators, with the exception of the two largest Flatops, now are equipped with hermetically sealed refrigerating units and carry five years' protection on the mechanism. That in itself is one of the strongest of sales arguments.

There are many reasons for increased sales this year. More people are working. There is a general acceptance of electric refrigeration. People have put off buying in past years, and this year they are in the mood to buy. They feel that they have postponed the purchase of home equipment long enough.

Another reason is that we started our sales activities earlier. In past years we did not hold our distributors' convention until some time after the beginning of the year. This year, we met the first week in January and we followed the distributors' meeting with some 60 regional sales conventions throughout the country.

Moreover, this year our advertising and promotional appropriations have been increased. Our advertising campaign for 1935 is the greatest in three years.

Magazine Advertising

Magazines have been selected to reach practically every home that is a prospective buyer of electric appliances—such as the *Saturday Evening Post, American Home, American Magazine, Better Homes & Gardens, Collier's, Cosmopolitan, Country Gentleman, Electricity on the Farm, Fortune, Good Housekeeping, House Beautiful, Ladies Home Journal, McCall's, National Geographic, New Yorker, Parents Magazine, Popular Science Monthly, Time, Woman's Home Companion,* and many, many others.

This advertising actually is local advertising, backing up the dealer and the salesman, pre-selling the prospect, building prestige for the product, paving the way for the salesman.

Tying in with the national magazine advertising is newspaper advertising, radio, outdoor, direct mail, window displays, sales literature. Special literature has been developed and now is available not only on the refrigerator, but on the range and dishwasher, as well. A complete library of such material is ready to supply the dealer and the salesman. Each of these booklets and folders covers a specific requirement, from recipe books to detailed descriptions of various models of each appliance.

Motion Pictures

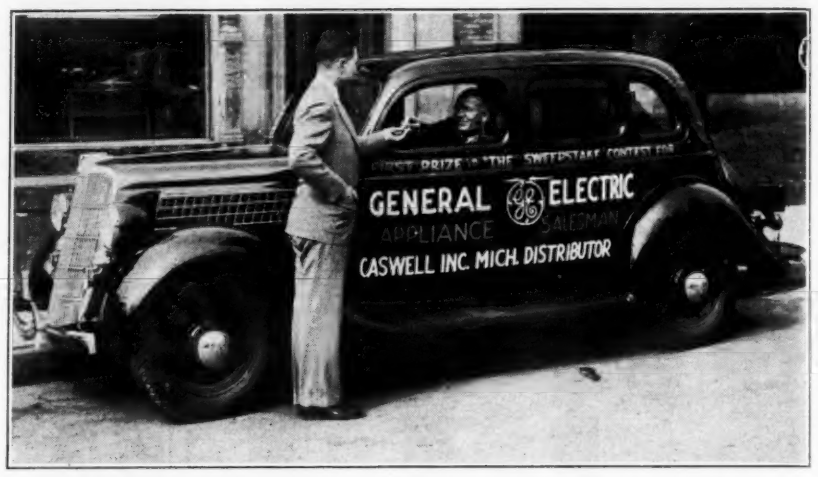
Motion pictures to help sell the electrical idea to groups are available, while the home service departments of distributorships, through cooking schools and demonstrations, are valuable aids to the salesman.

Sales this year will be spurred, too, by the government's various activities. The Federal Housing Administration has helped to make "modernization" the watchword of the day. People who own their own homes are thinking of remodeling or putting in new equipment. Nowhere is the need of such new home equipment more noticeable than in the kitchen, which for years has been the most neglected room of the average home.

Renters, too, are seeking homes which are modernized, and thus there is a big market in the apartment house field.

Our distributors and many of our dealers are equipped to help these people draw plans for kitchen modernization. The all-electric kitchen movement, launched largely through the kitchen section of General Electric Institute, at Nela Park, Cleveland, is bringing results in actual sales.

Incentive to Caswell Salesmen



This deluxe Ford V-8 sedan is for the leading salesman in Michigan's part of the "Refrigerania Sweepstakes," nation-wide refrigeration sales contest started last week by General Electric Co. Syd Caswell (in car), president of Caswell, Inc., G-E Michigan distributor, receives his keys from Mr. Law of the Dearborn branch of the Ford Motor Co. Harry Warren, new Caswell sales promotion manager, formerly with "Squire" Head, Indianapolis G-E distributor, helped get the Detroit race under way. He and Paul Lewis, sales manager, have charge of the contest.

Salesmen are finding that the sale of one kitchen appliance leads to another sale; that a call-back on a refrigerator owner results often in a sale of a G-E range or a G-E dishwasher. General Electric, too, is further contributing to the modernization program through a weekly radio broadcast, sponsored by G-E and turned over to the FHA.

We have just launched our big Spring sales contest. With prizes and awards galore, all exclusive General Electric salesmen are interested and enthused. Known as the "Refrigerania Sweepstakes," it is the most colorful of any similar sales contest ever staged by G-E.

Sales training, of course, is helping many a G-E salesman to establish new high sales records. We in General Electric believe in training, even for experienced salesmen. We have been told that our sales correspondence course and other sales training ideas are outstanding in effectiveness. We want everyone of our salesmen to take the course because it will help him to close more sales.

Sales Coaches

The many sales helps available, and the sales coaches—by which the product is taken to the prospect's door—will make sales easier this year. There are more than 100 of these traveling sales coaches in the service of distributors and dealers today, one of them being available for salesmen in most any section of the country to help them close difficult prospects.

All in all we face a wonderful sales year. Backing our faith in the year's possibilities, our refrigerator factories are working at full speed—and they have been for several months. With a complete line, high reputation of the product for service, backed by widespread advertising and sales promotion; and with well trained representatives and effective sales helps, we look forward to our biggest year.

BURRITT

Outlines a Plan for Getting Started

"Sell plus features" is what H. W. Burritt, vice president in charge of sales of Kelvinator Corp., advises his dealers and salesmen. Selling "plus features" means getting the prospect to take a better refrigerator than he had counted on when he first considered the idea.

"Sell up" is the more conventional way of putting it.

Mr. Burritt is one of the best known figures in the refrigeration industry. To all his old friends, as well as to those who have never had the fun of watching Mr. Burritt's Grecian-sculpture head grow ruddy as he warms up to the ideas he is trying to sell in a speech, we offer,

Mr. Burritt:

What promises to be the biggest spring sales drive in Kelvinator history is now getting under way. The factory organization has left no stone unturned in its effort to provide every possible bit of selling and promotional assistance and we want to urge Kelvinator dealers and salesmen now to do their utmost to cash in on the great possibilities for profit the present selling season holds.

Already buying is starting and there is every indication that the electric refrigeration industry is well into what will prove to be its greatest year. Kelvinator shipments to customers during March set a new record for that month and brought shipments for the first six months of the present fiscal year up to a point 36 per cent ahead of those for the same period last year.

People Are Buying

This six months total is within 1 per cent of the total for the entire year of 1929, last year of the so-called boom period. Certainly this is the best of evidence that the electric refrigeration industry in general and Kelvinator in particular are on the upward path.

People are buying. There is money available for purchases of electric refrigerators. From all sections of the country come reports of crowded showrooms as Kelvinator dealers throw open the doors of their spring new model demonstrations.

The Kelvinator Open House Party, at which time the new 1935 models are introduced, should be the first step of the spring sales drive for Kelvinator dealers. Plans and materials for this party have been provided by the factory and by the distributors, and it is up to the dealers to use them, to do everything possible to get refrigerator prospects in their respective communities acquainted with what Kelvinator has in its sensational line of Twenty-First Anniversary models.

The Open House Party was planned by the factory organization to give Kelvinator dealers and salesmen an aggressive opening activity for the year.

Not only has the plan been made

(*Continued on Page 12, Column 1*)

Wagner Motors are Quiet

IN the beginning the sole concern of the electric refrigeration industry was one of producing automatic operation with little regard to refinements in mechanical performance. Later the question of *quiet* operation became not only a competitive point, but an essential factor of satisfactory performance of refrigerators.

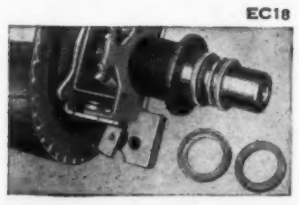
Wagner motors are the product of 44 years of experience in motor building and some fifteen years of close co-operation with manufacturers of domestic and industrial refrigerators. Their wide preference and adoption by the electric refrigeration industry attests to their exceptional fitness for refrigerators.

Among the distinctive features contributing to the quietness of Wagner motors is the rubber mounting, made up of layers of rubber and steel vulcanized together—elastic enough to absorb the small amount of vibration remaining even in the most carefully-designed motor, yet firm enough to preserve correct shaft alignment. Photo E572 to the left illustrates this type of mounting, a mounting that does not interfere with the removal of the motor or its endplates.

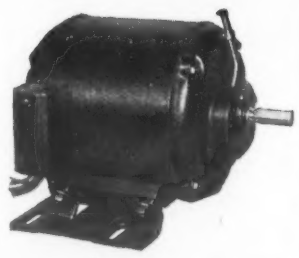
E572

Another feature is the cork thrust-washer (see Photo EC18 to the left) which eliminates end-play noise. In addition, rotors are skewed to reduce magnetic noise, and dynamically balanced to eliminate vibration and governor weights are silenced with felt bumpers.

EC18



Quiet operation is but one of several motor qualities the refrigerator manufacturer must consider. There are also such considerations as dependability, interchangeability, appearance, and performance—all of which are fully provided for in Wagner design and construction. For a full description of Wagner motors, ask for Bulletin 167.



There's a Wagner motor to fit your needs, regardless of the type you prefer. Included in the Wagner line of motors are

Type RB	Split Phase
Type KA	Repulsion-Start-Induction
Type RBZ	Capacitor-Start Induction-Run
Type RZH	Capacitor-Start Capacitor-Run
Type RD	Direct-Current
Type RP	Polyphase Squirrel-Cage

Wagner Motors are available in such various mechanical variations as open, totally-enclosed, or drip-proof; rigid or resilient mounted; horizontal, vertical, or flange-mounted; sleeve or ball bearing, etc.

Wagner Electric Corporation

6400 Plymouth Ave. Saint Louis, U.S.A.

MOTORS TRANSFORMERS FANS BRAKES

5635-2C

Artic

REG. U. S. PAT. OFF.

(DU PONT METHYL CHLORIDE) FOR DEPENDABLE SERVICE WORK

Low in both moisture and acid contents. ARTIC assures freedom from corrosion worries and enables service engineers to build a satisfied, steady trade.

ARTIC has been in use for 15 years. Proven satisfactory in a great many automatic units for commercial, household and air refrigeration. Now available for service work from stock points in all parts of the country.

Write for new "ARTIC Service Manual"

DU PONT

REG. U. S. PAT. OFF.

E. I. DU PONT DE NEMOURS & COMPANY, INC.
THE R. & H. CHEMICALS DEPT. WILMINGTON, DEL.

"Do As Machine Builders Do—Use ARTIC"

Hudson's Cuts Prices On Damaged Boxes

DETROIT—Four current models of Universal Cooler refrigerators, due to factory crate marred cabinets, are on sale in the basement of Hudson's Department Store here. A limited quantity of the models and prices are as follows:

5 cu. ft., lacquer exterior, $84.50; 5.18 cu. ft., porcelain exterior, $109.50; 6.01 cu. ft., lacquer exterior, $114.50, porcelain exterior, $129.50; 7.47 cu. ft., lacquer exterior, $139.50, porcelain exterior, $159.50.

On refrigerators priced below $131.50, terms are $5.00 down and pay once a month. Down payment on refrigerators above $131.50 is slightly higher but proportionately small.

Stereopticon Film Used In Direct Mail Drive On Electrical Dealers

PHILADELPHIA — Proctor & Schwartz Electric Co. here has issued a unique 3-day direct mail presentation to dealers of its Snap-Speed electric iron and the consumer advertising plans behind it.

Feature of the mailing was the Tru-Vue projector, a stereoscopic device affording third dimensional projection to the product.

On the first day a selected list of jobbers and retailers received a broadside in the form of a teaser. Neither the product or the name of the company was mentioned, but recipients were advised to be on the lookout for a box in "tomorrow's" mail.

The next day the stereoscopic device arrived. By holding it to the light and advancing a small roll of film, the dealer first read copy tying in with the previous broadside. The product itself was shown in third-dimensional project. Various features of the iron, including cutaway views were followed by typical advertisements from the campaign.

Stereoscopic views of the promotional material available for Proctor dealers were shown also. The film ended with the profit possibilities of the Proctor iron and directed attention to the following day's mail, another broadside summing up the story and emphasizing a final merchandising feature, a $1 trade-in allowance on old irons.

A letter from the vice-president of the company followed to prospects not answering within a short time.

Norge Completes Plans For Artificial Food

DETROIT—Negotiations for an artificial food display service to Norge dealers were recently completed between G. G. Whitney of the sales promotion department of Norge Corp., and Wm. W. Goodman, art director of the Cincinnati Doll Co.

The 51-piece display sells for $5.27, f.o.b. Cincinnati.

Hellings Made President Of Die Casting Corp.

CHICAGO—S. A. Hellings has been elected president of the Stewart Die Casting Corp., a wholly owned subsidiary of the Stewart-Warner Corp. Mr. Hellings was formerly vice president and general manager of the company.

Election of Mr. Hellings as president, marks a continuation in the change of the Stewart-Warner administrative policies toward more closely coordinating activities of its wholly owned subsidiaries. Previously the president of the corporation has also been president of all wholly owned subsidiaries.

Midwest Stamping Co. Rearranges Plant

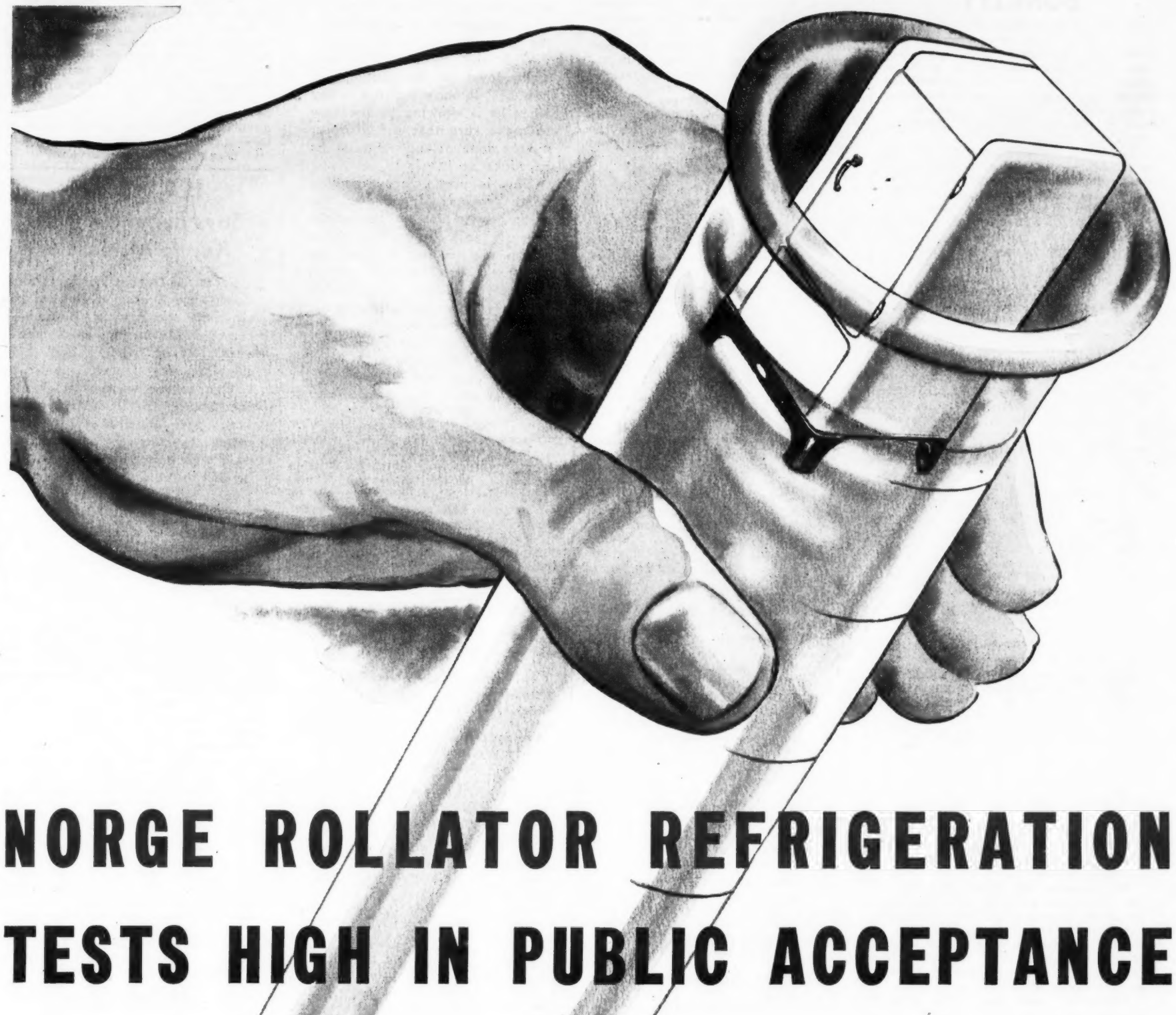
MORRISON, Ill.—To meet production demands, improvements have been made in the paint room and metal department, and the assembly line has been revamped at the Midwest Stamping & Enameling Co. plant here which has been manufacturing refrigerator cabinets and parts for the past year, reports S. S. Battles, president and general manager.

The plant is running almost capacity production at the present time.

Thielscher to Manage Graybar Branch Sales

PHILADELPHIA—K. L. Thielscher has been appointed radio, refrigeration, and appliance sales manager of the Graybar Electric Co.'s branch store here, distributor of Crosley radios and electric refrigerators in this area.

Mr. Thielscher, a longtime member of the Eastern Graybar organization, was formerly divisional manager of the company's Buffalo, Syracuse, and Rochester territories.



NORGE ROLLATOR REFRIGERATION TESTS HIGH IN PUBLIC ACCEPTANCE

•"Yes, I know the Norge is a good refrigerator." How often salesmen hear that from the customer. Such a dominant advantage as the Rollator and other obvious plus values possessed by the Norge, are stamped on the public consciousness.

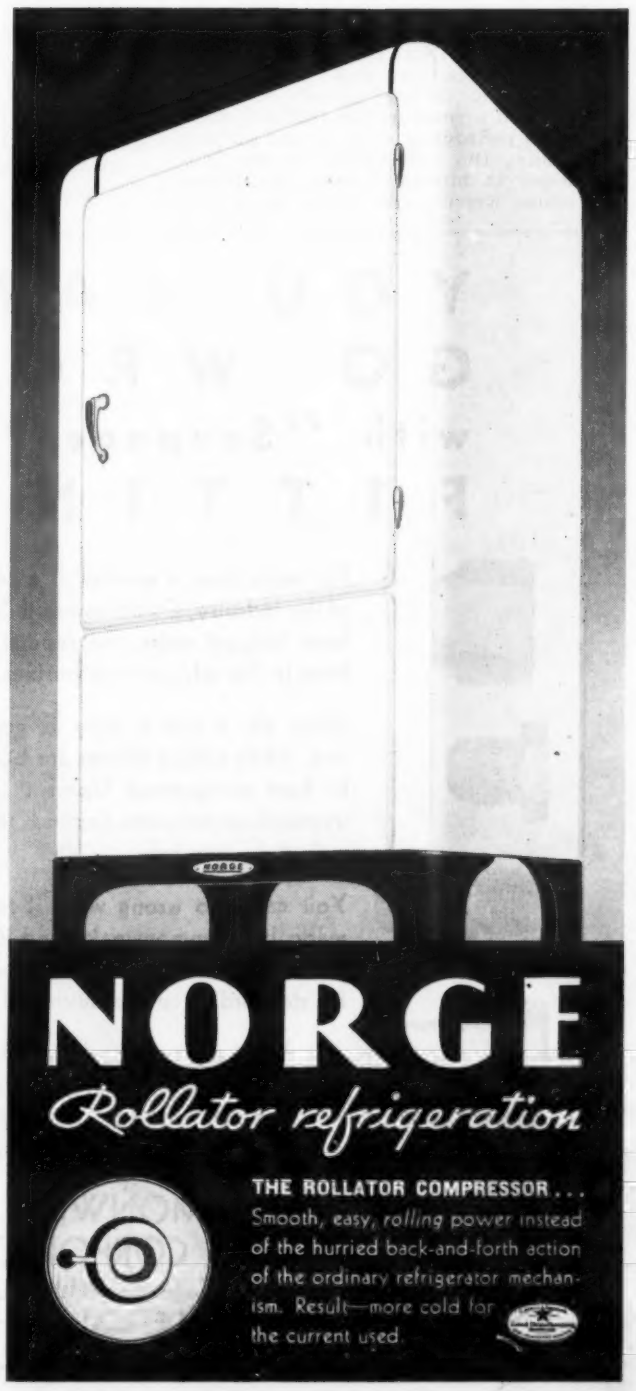
And Norge hasn't "kept its light under a bushel." Practical progressiveness in well-planned advertising, four skillfully-engineered, definite complete sales programs each year, covering spring, summer, fall and winter months, plus the support of satisfied customers, are constant sales-compelling forces.

Norge dealers are making ever-increasing sales records, and under the Norge plan, *a sale is a profit.* The margin is not broken down by excessive service requirements.

Norge history is one of constant growth—rapid progress to an enviable position in the refrigeration field. Every day the Norge franchise grows more valuable. Why wait?

Write, wire or phone for details of the Norge dealer program.

NORGE CORPORATION
Division of Borg-Warner Corporation, 606-670 East Woodbridge St., Detroit, Mich.


NORGE
Rollator refrigeration
THE ROLLATOR COMPRESSOR...
Smooth, easy, rolling power instead of the hurried back-and-forth action of the ordinary refrigerator mechanism. Result—more cold for the current used.

ROLLATOR REFRIGERATION • NORGE ELECTRIC WASHERS • NORGE BROILATOR STOVES • AERO-LATOR AIR CONDITIONERS • WHIRLATOR OIL BURNERS • NORGE GAS AND ELECTRIC RANGES

BURRITT

(Continued from Page 10, Column 5)

ideal for bringing prospects into dealers' showrooms, but it provides selling men with the best method for obtaining enough prospects to carry them through succeeding months as well as for making many immediate sales.

Handbills, invitations, literature, advertising, and other needed materials all have been prepared and are being used to great success by dealers who already have held their Open House Parties. Everything is ready to use and the plan needs only an energetic application to make it successful.

Follow Up Important

Success of these Open House Parties depends upon the follow up they receive from dealers and salesmen. Not only must effort be expended to get people into Kelvinator showrooms, but their names must be obtained, and prospects must be called upon, telephoned, brought into the showroom for a discussion of Kelvinator in terms of their own individual refrigeration needs.

And with the end of the Open House Party campaign and the beginning of the follow-up drive, the period of pre-season preparation is over and the real sales push is on.

It is the follow-up which makes your promotion effective. Now, at the start of the season, is the time for the cultivation of those prospects who are inclined to delay, who will buy eventually, but who cannot be sold on the first or second call. This period is a very critical time.

Talk in Terms of Value

Upon the intensive and intelligent selling effort expended during these months depends, to a great extent, Kelvinator's showing for 1935.

Not only must we meet and make every effort to sell every possible prospect in every community; in our own interests and in theirs, too, we must sell them the best that Kelvinator offers, within the range of their means.

We must talk in terms of value rather than first cost. This does not mean that we should talk less about economy, but more.

In stepping up a sale we are in the fortunate position of being able to show plainly that the additional expenditure required to purchase a Deluxe Kelvinator or a Super-Deluxe Kelvinator goes into features that increase its efficiency, length of life, and economy of operation.

When you sell the "Four Refrigerators in One," which has been stressed in our 1935 advertising and promotion effort, you not only increase your earnings, but make a friend of the purchaser—the kind of practical friend who by his or her enthusiasm is the best possible advertisement for Kelvinator and for the man who sells it.

In order that Kelvinator dealers and salesmen may make the most of the spring selling season, we have provided a comparative features chart which pictures in striking and graphic manner the advantages to the purchaser in buying Deluxe and Super-Deluxe Kelvinators. Make use of it—it will convince your prospects of the value to be found in the plus-features models and also will serve as constant reminder to you that you owe your prospects the best possible refrigerator they can buy, in order to insure them of lasting satisfaction.

Practical Features

Kelvinator is known to its many users as a refrigerator offering the maximum number of practical and time-tried features.

Sell features this spring, and step up every sale to a Deluxe or Super-Deluxe model wherever possible. No prospect who is shown by means of the chart how many features the Kelvinator Deluxe lines contain can fail to appreciate the real conveniences these features provide.

From a selling standpoint, the best thing about the Kelvinator spring "step-up" features campaign is that it emphasizes value more than price. Prospects today are more than anything else value conscious.

They are definitely out of the strictly price buying frame of mind, and are to a very great extent, doing their buying on a value basis. It is because of this that Kelvinator believes it has in its two "plus-features" lines, a real answer to the refrigeration salesman's need today.

Sell 'Plus' Features

Refrigerator selling this year demands the utmost in intelligence and perseverence, but if the 1935 Kelvinator sales program is vigorously followed by dealers and salesmen it will bring success to everyone concerned. The corporation itself is set up to obtain the greatest sales volume of its history this year, and it wants everyone to share in this expected increase.

One of the fundamental principles of Kelvinator's sales programs always has been an insistence that its dealers and salesmen make money. If they can't make money there is something wrong, and because so many do report a profit year after year, we know that it can't be the product or the factory selling helps which can be to blame.

In the final analysis, Kelvinator feels that the cooperation and willingness to do a real sales job on the part of individual selling men are certain to be followed by success.

And remember, Kelvinator plus sales this year depend upon how well you sell Kelvinator's plus features!

BROWN

Stresses Advantages of Conservador

Addison Brown — there's a name we'd like to have: easy to remember, yet distinctive, and with distinguished literary and historical antecedents—bears the title of sales manager for Fairbanks-Morse Home Appliances, Inc. That's a good job right now, and not a few people believe that it's going to be a lot bigger one of these days.

It's Mr. Brown's contention that the best way a salesman can sell a Fairbanks-Morse Conservador refrigerator is to show it to the prospect.

With this in mind, he gets right down to the problem of how best to show it, what to say when he is showing it, and how to make sure that the prospect misses none of the points when he looks at it.

This is pretty strong selling language, but Mr. Brown has been pretty nice to the editor recently, so we're going to relax for a minute and let him get away with it. The boys over in the seats reserved for Crosley will please control themselves. It will also be an opportune time for Dry-Zero's Harvey Lindsay to go out for a smoke.

We present Mr. Brown:

We appreciate the opportunity of making a statement on how to sell more Fairbanks Morse Conservador refrigerators in your next issue of ELECTRIC REFRIGERATION NEWS, in connection with your collective sales arguments for the industry.

If we were addressing a group of our dealers and salesmen we would convince them of the outstanding superiority of the Fairbanks Morse Conservador in about the following manner:

Where and how to sell Fairbanks-Morse Conservador: Conservador refrigeration is new refrigeration—it is based on a patented and exclusive feature found only in Fairbanks-Morse refrigerators.

Conservador Wins Prize

There are many technical features we could enumerate, but you as salesmen, *naturally* will confine your own conversation to the things the layman can see and *understand*.

Chief among our developments in refrigeration is the new tested "Conservador." This exclusive feature is a Fairbanks Morse patent. *No other refrigerator* in the world has it or can offer it to the public!

This Conservador patent is so sensational that it has just won the first prize awarded by the National Inventors Congress, meeting at Tulsa, Okla., this week, for being the most useful household utility invention of 1934.

In relation to selling the performance of Conservador—The economies will literally dance before your customers eyes. Hand in hand with beauty, it makes a duet that no other voice in the field can drown.

Savings Possible

This in a few words tells you how you can:

1. Cut your electric bills . . .
2. Store more food . . .
3. Store food longer . . .
4. Save time in preparing meals . . .

By preventing the inrush of hot air and the spilling out of cold air every time the door is opened, thereby giving lower temperature averages, meaning *less use* of motor (by allowing more orderly storage of food)—and by conveniently locating frequently used food right at your fingertips.

Cold retention—One of the most important sales features of the Conservador refrigerator is its cold retaining ability. In addition to excellent insulating qualities, by virtue of its own distinctive *Conservador* construction, you can always show much less loss in *cold* when doors are open.

Ask yourself these questions, and in answering them, you have in *one* powerful blow hit the nail on the head. You scientifically and pictorially explain: "what is Conservador refrigeration?"

Now it's your turn to ask a few pointed questions, to which the *only answer is you are right!*

Ask your prospect such simple, easy to understand questions as these:

1. Would you turn on all the lights in your house to get the one light you need in the basement?
2. Would you, if you were going to the tenth floor of a building, ride up to the twentieth floor and walk down 10 floors to get to the tenth?
3. Would you heat a 32 family apartment in every room if you only had two apartments rented?
4. Would you buy 100 lbs. of ice to cool a bottle of Coca Cola?

These are questions that explain Conservador construction, and cold circulation. They show how you divide your circulation into using *what you actually need*, and saving what you don't need. The consumer opens the door on an average of 20 to 30 times per day. Each time the motor starts. Think what this means in *light bills*.

Two-Temperature Zones

Conservador makes possible two separate compartments of cold, each with the proper temperature range for best preservation of foods. The inner compartment maintains the proper cold temperature for meats, salads, etc., and foods that should be *colder*. The Conservador automatically maintains a slightly higher temperature.

The best selling points are made by the box itself when the prospect looks at it and instantly recognizes a myriad of exclusive features.

Now, Mr. Taubeneck, I am sure that the above points specifically telling our dealers how to sell Conservador are so potent that you will undoubtedly want one for your own use.

If we receive your order you may be sure that we will guard it confidentially so that all of our competitors may not know how you honestly feel regarding the Conservador.

HANSON

Says Better Selling Is Key to More Sales

From the Dayton Refrigeration Corp.—which isn't in Dayton at all, but operates in Buffalo—comes Paul Hanson, sales manager, to tell briefly about his sales coaching course.

This course was prepared by the Burton Bigelow Organization. Mr. Bigelow, you may recall, was the scholarly gentleman who tripped the editor up on his American history a few weeks ago. He must be good.

Two minutes for Mr. Hanson:

We believe that the key to better business in the household refrigeration industry is better selling. We have prepared a complete sales coaching course for our dealers' use, designed so as to be usable by a group of three men or three hundred.

We are equipping our dealers with large wall charts for training purposes, together with a complete 150-page loose-leaf text on refrigerator selling.

For the benefit of the conference leader who handles sales coaching groups, we have prepared a special instructor's guide which gives the results of long experience in handling sales coaching programs.

We have found a wide-spread demand for this material and our dealers are already beginning to make excellent use of it.

The Dayton Sales Coaching Clinic was prepared under the direction of The Burton Bigelow Organization of Buffalo, sales counsel for the Dayton Refrigerator Organization.

BERKELEY

Discusses Convenience As Sales Tool

Before introducing the next man on the program, General Sales Manager H. C. Berkeley of the Inland Division, General Motors Corp., it might be interesting to quote from the letter he wrote to accompany his sales message. Says he:

"We are indeed grateful of the opportunity to tell the story of flexible rubber trays and grids in your very excellent publication, to the industry you serve.

"Frankly, we have felt for sometime that despite the fact that the ice cube convenience offered by flexible rubber freezing trays and grids has received the indorsement and the patronage in large measure of the refrigeration industry, and that they are used as original equipment by all the leading refrigerator manufacturers, your publication, which I believe sincerely is the best trade publication in this country, has taken but scant notice of an influence, which has been of real constructive value to the sale of mechanical refrigerators.

"Neither your editorial nor news columns have dignified this result with reference or comment, and the only information your readers have had regarding a very important, and we modestly believe a very beneficial improvement in refrigeration equipment, has come from the advertisements we have placed with you during the past several years.

"In welcoming the opportunity you have offered us to tell our story, I feel that it is but fair to say that we hope this indicates a willingness on your part to help publicize flexible rubber trays and grids.

"If, it is a fact that the ice cube convenience they offer does promote the best interests of the industry, then are we unreasonable in urging your cooperation in spreading the news?"

* * *

That's sorta telling us, isn't it? But if he didn't think that Electric Refrigeration News "is the best trade publication in this country," probably he wouldn't be so exercised.

Anyway, he gets a chance to tell his story in this issue, and more power to him. Incidentally, Mr. Berkeley has the distinction of having written the longest sentence ever to appear in Electric Refrigeration News.

It comprises all of the eleventh-from-the-end paragraph, and contains 175 words. Three paragraphs up is one which is probably the all-time runner-up, with 98 words.

The editorial staff of the News, knowing our passion for short sentences and short paragraphs, is firmly convinced that Mr. Berkeley "has something on" us.

Into the pocket goes the stopwatch for this speech, and silent will be the bell. Mr. Berkeley, take all the time you want:

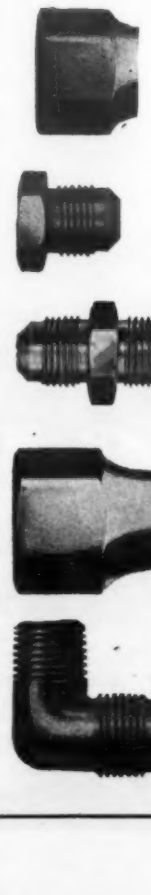
How to sell more flexible rubber freezing trays and grids in 1935? That's easy—simply expose them to refrigerator owners and prospects and the trick is done. It is the old, old story of the man who made "a better mouse trap."

A recent survey, very thorough and very exhaustive, conducted by one of, if not the largest, manufacturer of mechanical refrigerators, disclosed beyond question that refrigerator owners and prospects desire in a refrigerator, first of all *convenience*. That this is recognized by refrigerator manufacturers generally is evidenced by an examination of the 1935 models which show a strong tendency to make the service of these models more convenient to the user.

Until the advent of the rubber tray, five years ago, the freezing compartment of a refrigerator—the compartment which most largely serves the man of the house, the holder of the purse strings, was equipped with the most inconvenient and uneconomical utensil ever offered for general public use, namely, a cold wet metal tray in which to freeze ice cubes but which usually stuck in the sleeve and then released the frozen cubes only with

(Continued on Page 13, Column 1)

YOU CAN'T GO WRONG with "Seepage-Proof" FITTINGS



For more than a quarter of a century, the entire life of the industry, Commonwealth Seepage Proof Fittings have helped make the reputation of many leading firms in the refrigeration business.

After all, a unit is only as good as its components and, while tubing fittings are but small items, they are far from unimportant. Upon their ability to withstand tremendous pressures depends the ultimate satisfaction with the entire job.

You can't go wrong with "Seepage Proof Fittings" made by Commonwealth and it is always good business policy to consult them regarding requirements for standard or special fittings.

We make prompt shipments of fittings "Built Right To Stay Tight" in hundreds of standard and semi-standard patterns and invite your inquiries for specials in any quantity.

COMMONWEALTH BRASS CORPORATION
Commonwealth at G. T. R. R.
DETROIT, MICHIGAN

BRUNNER

Send for the New
REFRIGERATION CATALOG
Eight Models of Compressors
Forty-one Models of Highsides
from 1/6 H. P. to 15 H. P.
BRUNNER MANUFACTURING CO.
UTICA, N. Y.

1935 Gilmer Catalog
NOW READY

Gives complete details on MOULDED RUBBER BELTS for all makes of

Electric Refrigeration Units
Beer Pumps
and Oil Burners

also alphabetical and numerical Listings with Consumer Prices

Gilmer

Write for your copy
L. H. GILMER CO., Tacony, Phila., Pa.
Specialists in Quality Belts since 1903

Makers of the World's Best-Known V-Belts

BERKELEY

(*Continued from Page 12, Column 5*)

the greatest difficulty by slow melting, first from the pan and then from the grid into an unsanitary kitchen sink from which they must be taken and washed.

Imagine, as illustration, a furniture salesman undertaking to sell a dresser equipped with drawers which so frequently stuck in the dresser that it was necessary to furnish a small crow bar to assist in loosening the stuck drawer.

Imagine also the salesman's consternation, if he must explain to the prospect that after the drawer has been loosened it must be removed from the dresser and carried to a neighboring table in order to secure the collar and necktie he needed, and then conceive, if possible, the sales appeal of such a piece of furniture if the salesman is forced to admit that in extracting collars and ties from the drawer about 25 per cent of them must be destroyed or in effect melted away.

Convenience of Rubber Trays

Such was the type of ice cube convenience or rather inconvenience offered by the mechanical refrigerator of five years ago when flexible rubber freezing trays were first introduced to the industry. It may be a mere coincidence but the fact remains, that the greatest growth of the refrigeration industry, despite a severe depression, has followed the introduction of this rubber ice tray.

This modern tray offered, for the first time real convenience in securing ice cubes. Now ice cubes are provided at the refrigerator and not out of the kitchen sink and the user gets all the ice frozen, available instantly, tray to glass, by the simple pressure of the finger tips and from a tray which does not stick in the sleeve or splash the user.

No claim is made that this ice cube convenience is entirely responsible for the industry's growth, but it fairly may be claimed that the flexible rubber freezing tray and grid, by adding to the convenience of the mechanical refrigerator have at least increased its public acceptance and sales and promoted its welfare.

Adoption of Rubber Tray

This is evidenced by the fact that during the last five years practically every leading refrigerator manufacturer in this country and many abroad have adopted rubber freezing trays and grids for use as original equipment.

During that period over half of the mechanical refrigerators in use have been supplied with this modern convenience and the sales now run well over 1,500,000 a year largely because of a generous public demand.

This then must be a "better mouse trap" or no such path would ever have been beaten to the maker's door.

That rubber trays should have been subjected in the beginning to scrutiny and criticism was not only natural but wholesome. The obvious question of odor and taste was raised but with the aid of scientific rubber compounding and by exercising the utmost care in the selection of the purest crude rubber, by clean processing and by the use of the latest deodorizing equipment, this early defect was promptly remedied and so for several years, there has been no more reason why ice cubes from rubber trays should produce a taste of rubber than that babies nipples from which infants have been fed for years, should contaminate the milk the child drinks.

Rubber trays produce ice cubes as clean, pure, and tasteless, as the water used. They are endorsed and approved not only by refrigerator manufacturers, but by Good Housekeeping, Priscilla Proving Plant, and Delineator Home Institute as well as by millions of satisfied owners.

The life of rubber trays was at first questioned but time has shown, that in this respect rubber trays compare favorably with any other part of the equipment. This is not hard to understand when it is realized that low temperature and darkness are the most ideal conditions to encourage long life in any rubber product.

The fact that rubber has not the thermal conductivity of metal at first raised the question of freezing time and while it is true that rubber trays freeze more slowly than metal trays, this loss in freezing time is more than off-set by the fact that rubber trays deliver full-sized ice cubes as against ice cubes one-quarter of which have been melted away, and the further fact that since 87 per cent (from recent survey) of the ice cubes are used after 6 o'clock in the afternoon, the freezing is done at night and it makes little or no difference to the housewife whether the ice cubes are frozen in a metal pan by 2 o'clock in the morning or in a rubber tray by 5 o'clock in the morning if the frozen tray is available for use at breakfast. and this at no additional cost since the same amount of power is required to extract heat from equal volumes of water regardless of the container. The only variable factor is time.

This then is the story of the reason flexible rubber ice trays have made so quickly an indelible impression on the refrigeration industry and appealed so strongly to refrigerator owners.

And now to the milk in the cocoanut, "How to sell more refrigerators in 1935." Consider briefly these points.

As compared with the automobile, for instance, the refrigerator lends itself to the addition of but few accessories and therefore refrigerator distributors and dealers have a limited opportunity for increasing their sales volume with the sale of accessories.

Saleable Accessory

Flexible rubber trays and grids offer *dealers* a saleable accessory, an opportunity to use an attractive and appealing gift for the purpose of securing valuable tips on prospects, a means to encourage salesmen to make after-sale-calls and a chance to enable service men to earn a profit.

They offer *salesmen* an opportunity to improve their customers appreciation of mechanical refrigeration by adding this ice cube convenience, and a chance to secure valuable information regarding prospects from such a customer.

Service men are given an opportunity to help pay for their service calls by the sale of rubber trays, and a chance to leave an owner better pleased than ever with the refrigerator although it had required service attention.

Records prove that no single refrigerator accessory has met with so little sales resistance or attained so large a volume of sales in so short a time as rubber trays. Among the thousands of letters received from satisfied and delighted users so testifying, at least this one may be of interest. The following quotation from a letter written by the Official Custodian of the White House, Washington, D. C., accurately and effectually tells the story.

"The rubber ice trays for our refrigerator have proven so satisfactory I wish to duplicate the order. We find them valuable time savers." A more flattering endorsement could hardly be imagined.

To repeat and to conclude, the answer to the question "How to Sell More Refrigeration in 1935" is simply to expose flexible rubber freezing trays and grids to the prospect or the refrigerator owner and the trick is at least partly done.

Convenience is a good watch word.

LINDSAY

Puts Insulation into a Sales Presentation

One of our best—and most frequent—contributors, is President Harvey Lindsay of Dry-Zero Corp. We're proud of the close scrutiny which this busy executive gives each copy of Electric Refrigeration News.

Let a single statement be made which he thinks is not founded on fact—particularly if that statement has even a remote bearing on the subject of insulation—and bang! Mr. Lingsay writes us another letter.

The fine part of it—apart from the evidence of his intense interest in and close attention to what's published in the News—is that each letter is a gem. One of the most scholarly individuals in the industry, he blasts away with unassailable logic couched in the smoothest and most persuasive of diction.

It's pretty tough to argue, on paper, with a fellow like that. Some day—just for the fun of it—we'd like to see Mr. Lindsay square away against F. M. Cockrell, than whom there is no whomer at that sort of thing, in a skirmish by mail. That, boys, would be a fight worth waiting years to watch.

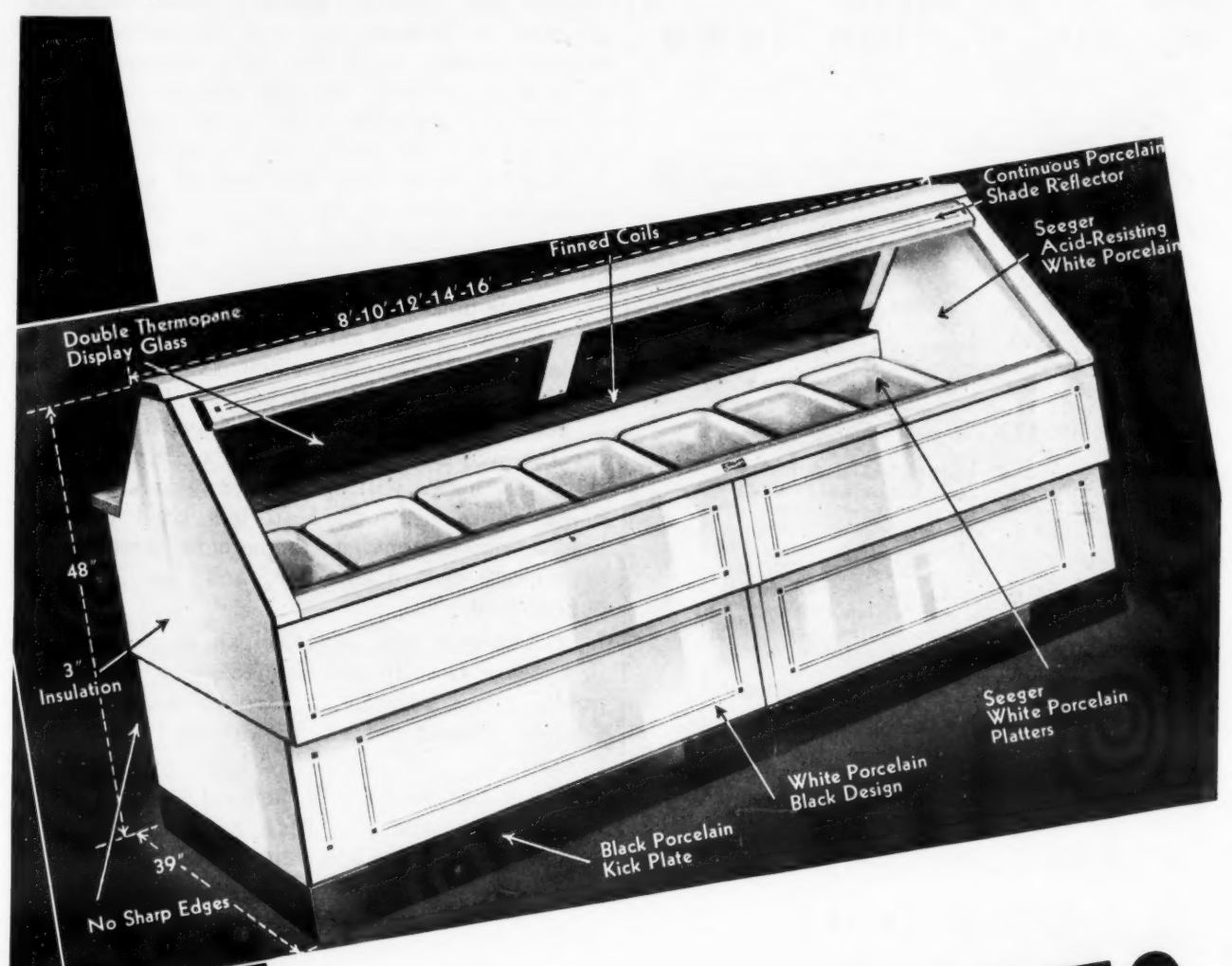
With no little pride Electric Refrigeration News presents its leading contributor, Harvey B. Lindsay:

Most salesmen dodge talking mechanics to women. They've heard about the woman's viewpoint, so they talk fancy shelves, trick doors, freezing trays and handsome finishes. Their eloquence on the virtues of a lettuce crisper would lead a visitor from Mars to think crisping was the great American occupation.

But when some salesmen come to the mechanics, they falter or duck. And they lose a percentage of sales. Don't take my word for it. Ask Dr. Donald A. Laird, the Colgate University psychologist who has burrowed deep into people's minds to see what makes them buy.

Or, as Dr. Laird suggests, as a good bond salesman. (A good one is one who is still selling bonds, not a 1929 model.) He'll tell you the best way to sell most women is to open your

(*Continued on Page 15, Column 1*)



Series 7

DISPLAY CASES

BY

Seeger

SAINT PAUL

Presenting Series 7 . . . a departure from the usual.

This display case is built to compete with low priced cases . . . but, built to Seeger standards.

The price is low to meet competition . . . yet mass production allows for quality materials and workmanship.

Learn all about this opportunity for quick sales. Write For Details.

SERIES SEVEN (REAR)

Seeger Refrigerator Company

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Special Representatitives—Meyer Smith Co., Buffalo, N. Y.
Seeger-Philadelphia, Inc., Philadelphia, Pa.

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Modernization: What Is It?

SOMETIMES a great deal depends upon the name one gives a thing. "A rose by any other name would smell as sweet," but the fellow who invented "American Beauty" gave that species added sales appeal. So it is with almost anything else one tries to sell: what you *call* it frequently helps determine how saleable a piece of merchandise it becomes.

Perhaps it was following a similar train of thought that led Vice President T. K. Quinn of the General Electric Co. to declare recently that the trouble with the modernization program of the Federal Housing Administration is that five-syllable word, "modernization," with which they have tagged the program. "People just don't understand what the government means by modernization," Mr. Quinn points out.

Mr. Quinn has been thinking a lot about the problem and has come to the conclusion that the public will have to *see* some modern homes before they can develop a desire for modernization. Acting on the thought he held a contest for architects which resulted in the selection of 50 designs for truly modern homes. Furthermore, he has given a *name* to the new style of architecture. It isn't Gothic or Colonial, Byzantine or Georgian, Spanish or French, or early Irish Contractor. He calls it the "*American Home.*"

The "American Home" may be had in a great variety of styles and sizes. There is ample room for the exercise of individual taste and the adaptation to family needs and local conditions. But the "American Home" will have certain new equipment regardless of style or size. It will, of course, be air conditioned.

If a way could be found to build a thousand of such modern homes in as many communities, Mr. Quinn suggests, the public would have a chance to see the advantages of new plans, new materials, and new equipment and thereby acquire the urge to possess. And, he reminds us, the public has a great degree of resourcefulness when it comes to finding the money to buy what it really wants.

For many years there has been much speculation regarding the future for prefabricated homes; and when a scheme such as the FHA—which provides for new home construction as well as "modernization" of existing homes—bobs up, those imbued with this vision see their chance to give it the initial impetus. But prefabricated homes won't spring into a mammoth industry overnight—just as air conditioning hasn't. Proponents of the idea will get little help from local contractors and builders, of course. Moreover, they err in trying to jump into mass production at once.

Prefabricated homes naturally call for different technique, style, materials, and form in order for their manufacture to become susceptible to quantity production methods. But people buy homes like those they have seen elsewhere, and admired and coveted. Hence it would seem that in order to prepare the way for prefabricated homes, houses made of such materials and designs must first be sold to the wealthier classes, the so-called "cream of the market." That has been the path of every other successful specialty article—sell the upper crust first, create the desire in the lower income brackets by so doing, and then follow through with a mass production, mass selling job.

This is not an indictment of the prefabricated homes. As such, many of them are highly praiseworthy. They are efficient, well made and —to some eyes—quite attractive. But they are so new, so different, that they have little appeal for the hundreds of thousands of families that the FHA hopes will spend money this year for home improvements. Materials used in these homes, decorations, arrangements, designs—all are new and unfamiliar and are not yet popularized.

Looking at the situation as of the present, it appears that it will be necessary to sell the public "modernization" largely in terms of new equipment which is already known and desired.

As A. M. Sweeney of General Electric points out in this issue, the FHA program can be a real selling aid for distributors and dealers this season, but to get the benefit from it they must tell prospects that *"modernization" means a new electric refrigerator,* or range, or washing machine, or air-conditioning system.

The public *wants* electric refrigeration—that is certain. A section of the home market definitely desires a complete electric kitchen and electric laundry. It also appears that a large number of home owners are *looking forward* to air conditioning. But all too many are thinking of it as something far in the future, not as an immediate necessity.

The job for the air-conditioning industry is to translate that latent desire into a pressing need. Dealers and salesmen must be trained and shown how to do that job. The public must have a chance to see and *feel* air conditioning in a *home* as well as in restaurants and theaters.

Anything which can be done to stimulate the building of modern American homes where they may be seen in natural settings, with all equipment actually operating, will speed the day when local architects and local builders will be getting contracts from local business and professional men and placing orders with local distributors for the equipment and materials which compose the modern home.

WHAT OTHERS SAY

Electricity's Popularity Grows

EVEN if no more than a guess, the estimate by the Federal Power Commission that return of normal business activity will find national electric power requirements at least 4,000,000 kilowatts in excess of the peak generating capacity of 1929 is extremely interesting.

This "potential shortage" of power is described by the commission as equaling the capacity of about 50 large generating stations. It is three times the capacity of the world's largest single power generating project, Boulder Dam.

Yet the estimate merely presupposes that a moderate rate of growth in methods of using power, and therefore in the potential demand for it, has continued during the depression period, when little capital has been expended on enlarging generating capacity. That this growth has been taking place, both through invention of new electrical devices for the home and through increasing mechanization of industry, is practically common knowledge.

Depression halts the flow of capital investment, but it does nothing of the kind to the flow of ideas from the human brain. If anything, hard times sharpen the wits of inventors and multiply the ingenuity by which power-driven machines are adapted to do man's work.

In the light of this fact, the commission's estimate of potential power demand seems rather more modest than otherwise. In the six years ending with 1929, consumption of electric power in the United States more than doubled and the capacity of generating plants was increased by 14,666,000 kilowatts or nearly 85 per cent. It seems almost axiomatic that in the six years following 1929 potential consumption must have grown enough to warrant an increase in generating capacity of at least 4,000,000 kilowatts.

Presumably the commission's main interest is to refute the argument, raised by opponents of the government's various hydro-electric power developments, that these projects will result in an over-supply of power. But its study serves by inference to refute a lot of other ultra-conservative predictions about the economic future, which seem to proceed on the theory that during the depression American ingenuity and receptiveness to new ideas and new inventions somehow have been atrophied. —*Detroit News.*

LETTERS

Fake Subscription Agents

The E. W. Lape Store
Piqua, Ohio

Editor:

We have your letter of the 19th in reply to our post card of Feb. 12 relative to a fake magazine salesman who presented himself as being an agent of the Periodical Publishers Service Bureau of Cincinnati, Ohio.

We wrote the above company and they replied that this man, J. Leconte, as near as we can make out his signature, is in no way connected with their company. They further stated that, in as much as our check had been made out to the Periodical Publishers' Service Bureau and had been endorsed by this Leconte, the endorsement was a forgery. At their suggestion we took this matter up with our bank and they, in turn, went back to the local merchant who had cashed our check for Leconte and he returned the $3.00 to us to cover our loss.

We can give you but a very meagre description of this man who signed himself as J. Leconte. He was rather poorly dressed and wearing no overcoat. Smooth talker who seemed to be familiar with business publications, publishers, prices, etc. He appeared to be about 40 years of age, sallow complexion, face somewhat seamed, dark brown hair fairly thick, weight about 150 lbs., height about 5 ft. 8 in. We are uncertain as to the eyes but believe they were dark. We are enclosing the receipt he gave us for your examination but ask that you return it to us when you are finished with it.

Enclosed is our check in the amount of $3.00 to cover one year's subscription to REFRIGERATION NEWS. Kindly start with the March 20 issue as we want the issue containing the specifications of all makes. Send to The E. W. Lape Store, 217 N. Wayne St., Piqua, Ohio.

E. W. LAPE, JR.,

Unauthorized Solicitation

C. Niss & Sons, Inc.
2021 N. Third St., Milwaukee

Editor:

This morning we were solicited by a Mr. Barishnik of the Milwaukee Book Store, 736 N. Milwaukee St., of this city who claimed that he was taking subscriptions to the ELECTRIC REFRIGERATION NEWS.

Will you advise if this company is an authorized representative of yours? After this man's visit this morning we recalled your recent articles which mentioned frauds who claimed to be representing your company and had perpetrated upon other dealers for subscription purposes.

D. A. BOCK,
Electric Appliances Dept.

Answer: We have not authorized the Milwaukee Book Store to solicit subscriptions for ELECTRIC REFRIGERATION NEWS and would advise you to place orders direct by mail.

We have had numerous complaints recently from dealers who have paid money to individuals claiming to represent the NEWS. When the name of a subscription agency is given by the solicitor it invariably happens that the agency disclaims all responsibility for the activities of the solicitor.

Pay No Money to Agents

Burstein-Applebee Co.
1012-14 McGee St., Kansas City

Editor:

Some 10 days ago we placed a subscription order for ELECTRIC REFRIGERATION NEWS through our local magazine agency, the Southwest News Co.

We requested them to rush this order asking that you mail a copy of the magazine to us special, in addition to entering our subscription. We have not as yet received this magazine and would appreciate your immediate attention to the end that we may have it within the next few days.

We are also interested in securing a copy of your REFRIGERATION DIRECTORY which we understand will be off the press in the very near future. Kindly advise as to the cost of this DIRECTORY. Also please advise us if you have any publications or books which would be of interest to the refrigeration service trade or refrigeration dealers and which could be handled at a profit by ourselves.

M. W. APPLEBEE.

Answer: We have not received your subscription order placed through the Southwest News Co.

We have no subscription agents and do not encourage the placing of orders through professional agencies. There are frequent delays and errors in connection with orders placed through agencies and, of course, we have no control over their activity.

The REFRIGERATION DIRECTORY will be mailed this week to paid-in-advance subscribers, and the MARKET DATA BOOK will be completed in three or four weeks.

You will be interested to know that we are planning to increase the amount of information for service men published in the weekly issues of the NEWS. We do not, as yet, have a service manual but we are working on such a book and plan to market it through refrigeration jobbers.

Adding Insult to Injury

Johnson Electrical Shop
'Everything Electrical"
428 Benson Ave., West, Willmar, Minn.

Editor:

Last week a Mr. George Downey of Duluth, Minn., stopped in our store and asked us to subscribe for the ELECTRIC REFRIGERATION NEWS including the *Electrical Merchandising* and *Radio Retailing* magazines for one year at $3.00. A special introductory sale for 60 days only.

We have been informed that the Business News Publishing Co. has been sold to S. Gernsback Publication Co. of New York and this is S. Gernsback special sale.

Mr. Downey is also selling for the Associated Trade Press, Chicago, Ill.

Since our subscription expires this month for the ELECTRIC REFRIGERATION NEWS and we haven't seen any notices in your magazine concerning the change of business, we would like complete information on this.

Our understanding always has been that you didn't have salesmen soliciting.

E. B. JOHNSON.

Answer: We never heard of "George Downey" but we have had a complaint about another solicitor who claimed to represent Associated Trade Press of Chicago.

ELECTRIC REFRIGERATION NEWS *alone* is $3.00 per year, and it is *not* sold in combination with McGraw-Hill publications.

Whoever said we have sold out to Gernsback (or anybody else) deserves a term in jail, and if we catch this bird collecting money illegally, we will gladly pay the expense of prosecution.

Mail Order Competition

W. B. Butcher Electric
217 West High St., Lima, Ohio

Editor:

The independent refrigerator dealers in Lima, Ohio, have been having a lot of competition from Sears & Roebuck's "Coldspot," which we believe has been unfair competition in many instances. Montgomery Ward, too, have come out with a special six cubic foot refrigerator to sell at $129.50, being $10 under the "Coldspot." Since these two mail order companies have retail stores in Lima, their chain store prices and tactics have been beating the independent dealers in early spring sales recently.

It stands to reason that these mail order houses who have the boxes built for them by other smaller, comparatively inexperienced companies in refrigeration, cannot match dollar for dollar value such as is found in Frigidaire, Norge, or Kelvinator, and at the same time undersell these recognized leaders up to $60 on the popular six cubic foot model. Yet they are doing a selling job by "bull dozing" the public with these statements: "We eliminate advertising and outdoor selling expense and can therefore sell much cheaper." "Our cabinets are made by some of the leading refrigerator companies such as Kelvinator and Norge." "You have nothing to worry about." "We even replace the unit for only $8.00 in case it ever shows defective." That last statement surely cannot be right. If a unit only costs $8.00 for replacing, where do they get $131.00 for the balance, is it the cabinet? They also say they have the same type rotary unit as Norge uses.

These mail order houses are certainly overstepping fair competitive methods in business when they reach out for the refrigerator business, since they have no regular service department, no personal attention in the home for adjustment, etc., and since they use the cheapest refrigeration materials, design, and workmanship, which cannot hold up and give satisfactory service over a period of years. The worst of it is the suckers who buy these boxes usually brag about them to their friends even though they cost twice as much to operate as a standard make. They like to brag about the saving made on their "buy."

Please advise how these mail order-house salesmen, many of whom are not paid a living wage, can be stopped from telling cheap lies about their merchandise in order to match up with their cheap prices, to close their sales.

W. B. BUTCHER.

Needs Specifications

5525 Wentworth Ave.
Chicago

Editor:

Over somebody else's shoulder I read of your "Drop a quarter in the slot" offer on refrigeration manufacturers specifications of their current models. I am just breaking into the game and those four issues are just the thing for me. I realize I am late in trying to get under the wire but if there are any additional charges I will be glad to pay.

ARTHUR LYONS.

LINDSAY

(*Continued from Page 13, Column 2*)

talk like this: "Now, Mrs. Blank, let's discuss this proposition as one man to another."

That pleases any woman. It infers she's smart . . . that she can understand anything a man can. And, if you can slip her a little technical information that she can go home and spring on her husband—that's a sale.

Insulation is an ideal sales point for just such a purpose. It's importance as a silent partner in electric refrigeration is usually overlooked. It's a hidden product.

Most refrigerator merchandising programs gloss over it. It is subordinated to nearly every other item. Its importance has been so minimized that most refrigerator dealers and salesmen know too little about it.

That they sense this lack of knowledge was indicated in a recent survey made by M. Glen Miller, our advertising agency. Most of the dealers contacted expressed a desire for material and information to enable them to use good insulation as a sales argument.

For the benefit of these dealers, here is how I would go about it if I were selling a Dry-Zero insulated refrigerator. Having gone over the general features of the refrigerator and pointed out the merits of the cooling unit, I would continue along this line:

"There is one thing about this refrigerator, Mrs. Blank, that I'd like to show you—but I can't. It is hidden inside here. (Rapping on the side of the cabinet.) You'll never see it.

"In these walls, Mrs. Blank, we put the finest insulation money can buy. It costs more than other kinds. But it's worth it. It will save you from 30 cents to $1.50 a month as long as you have the refrigerator. That's because, if we used ordinary insulation, it would take a lot more electricity to keep the refrigerator at the proper temperature, particularly after a few years use. Here's why:

Less Heat to Pump Out

"Our cooling unit is the best on the market. Its job is to pump heat out of the refrigerator into the open air. We believe it uses less current to pump out one unit of heat than any other kind that's made. That saves you money.

"But the less heat the cooling unit has to remove, the more money you save. That's where insulation comes in. Its job is to keep heat from getting inside the cabinet. The less heat that gets in, the less the cooling unit has to pump out and the less current is needed.

"The Dry-Zero insulation in this cabinet lets in less heat per inch of thickness than any other product of this kind on the commercial market. It has the highest rating of the U. S. Bureau of Standards for a commercial insulant. Admiral Byrd used it on both his Antarctic expeditions to insulate his houses at Little America.

Used in Stratosphere

"It is used in the finest type of special low temperature refrigerator cars and in most refrigerated trucks. Dr. Jean Piccard and his wife had suits of it when they made their stratosphere flight. Wiley Post's stratosphere plane is insulated with it.

"It's an interesting product. (Shows her a sample.) These white, silky-looking fibres are almost unique. They grow in the seed pods of the Ceiba tree and are shipped here from the tropics because they are the best raw material for a heat stopper that can be found.

"You note these fibres all run across the sample. That isn't an accident. It is done by complicated, expensive machinery, and is the thing that gives Dry-Zero its peak efficiency.

"But the thing that keeps Dry-Zero efficient, year after year, is the nature of the fibre itself. Moisture is the great enemy of insulation. When moisture gets into some insulations, they soak it up. Soon they are letting through twice the heat that gets through when they are dry. And they deteriorate.

Waterproofed by Nature

"To prevent this, nearly all insulations are sealed inside an asphalt slab. This is a big help. But you'd be surprised how water vapor in the air can sometimes worm its way through seals that are proof against liquid water. If that happens with Dry-Zero, however, there is nothing to worry about.

"Here's why: These same fibres are used for filling all U. S. Navy life-jackets. It's more bouyant than cork. One of the few pieces of wreckage recovered after the Akron disaster was an aluminum pipe wrapped in a blanket of Dry-Zero.

"The reason these fibres defy water is interesting. They are designed by Nature to waft the seeds of the Ceiba tree through the air for great distances in spite of torrential tropical rains. Nature has made each fibre a tiny sealed tube. This makes a tuft of Dry-Zero the exact opposite to a tuft of absorbent cotton. The cotton fibres suck up water. The tuft will hold quite a bit. But not the Dry-Zero. It's just like water rolling off a duck's back.

"Because of all this, Dry-Zero insulation protects you from big light bills, not only this year, but 10 years from now.

"But I think it's important for still another reason. That's the fact that we use such a product in a place where nobody will ever see it. To me, it seems that's pretty clear evidence of the quality built into every inch of our refrigerator."

This little talk is offered only as a suggested model. Many a good salesman can, doubtless, improve on it. Some will lengthen it, and some will condense it. That it is an effective weapon, when properly handled, I know from hundreds of letters I have received from refrigerator salesmen.

And remember it gives you a chance to try the bond salesman's angle: "Now, Mrs. Blank, let's discuss this proposition as one man to another."

Try it on your next sale.

PLAYTER

Emphasizes Importance of Efficient Insulation

From another leading insulation manufacturer, Armstrong Cork, comes a brief but equally pertinent exposition of the values of a good insulation to an electric refrigerator.

Gray Playter, who wrote this short piece, winds up with a first-class sales tool for salesmen of refrigerators using Armstrong's Corkboard or Temlok. Tell the prospect, he advises, that your refrigerator is insulated with material made by the manufacturers of Armstrong's Linoleum—which links it readily with something most householders recognize familiarly.

Mr. Gray Playter:

The writer wishes to take this opportunity to offer his hearty congratulations on the splendid job you are doing with ELECTRIC REFRIGERATION NEWS.

Insulation has a direct bearing on the operation and maintenance costs of all domestic and commercial refrigerated equipment. The efficiency of the insulation determines to a great degree the amount of refrigeration that will be required.

Proper and adequate insulation pays for itself many times over by the economies it effects. On the other hand, the use of insulation that is poor in quality or of inadequate thickness results in unnecessarily high refrigeration costs, due both to high power consumption and excessive wear on the refrigerating unit.

Insulation that is absorbent of moisture, inadequate in thickness or efficiency, or improperly installed is certain to deteriorate, necessitating expensive repairs or replacement.

Equipment insulated with Armstrong's Corkboard has natural insulating qualities given to cork (the bark of the cork oak tree) by nature.

A microscopic examination of cork reveals that it is of cellular structure, each tiny cell containing entrapped air. This cellular structure of cork is a most effective bar to the passage of heat, air, and moisture.

Armstrong's Temlok fibreboard insulation's resistance to the passage of heat is maintained by an exceptional resistance to moisture absorption. Temlok is made from the heart-wood of Southern Pine, and every fibre is water-proofed by nature with impregnated rosin.

A large percentage of all prospects for refrigerated equipment are familiar with the name of the Armstrong Cork Co. due to the widespread advertising and sale of Armstrong's Linoleum.

By telling prospects that the refrigerator is insulated with material made by the makers of Armstrong's Linoleum a salesman can cash in on the prestige of the Armstrong name in the minds of the buying public.

RHODES

Gives Suggestions for Air Cooling Sales

One of the best letters we received came from W. W. Rhodes, the active and hard-pushing sales manager of Kinetic Chemicals, who offers a wealth of practical advice on the selling of air-conditioning equipment. The more air-conditioning equipment sold, of course, the higher the sales volume of Freon—which is what interests Mr. Rhodes.

Partially through his efforts and partially because of its properties, Freon is now considered the leading refrigerant for air-conditioning purposes, and is utilized by practically all of the major manufacturers.

Very little information has been developed yet on sales methods for air conditioning. Mr. Rhodes has a contribution here which we think is one of the most succinct and useful we have yet seen.

It is our privilege to present W. W. Rhodes:

The obvious way to sell more refrigeration in 1935 is to secure a Freon air-conditioning equipment franchise from one of the companies manufacturing such equipment and then set about organizing an air-conditioning department.

Every air-conditioning department should include in its personnel a heating and ventilating engineer who handles the problems encountered by the salesmen and specifies the right type of equipment to fit the customer's needs and pocketbook.

Stores, theaters, funeral homes, operating rooms of hospitals, florists' establishments and restaurants are the locations where the majority of the sales are being made at the present time.

If the John Doe Shoe Store on Main Street installed their air conditioning last year, it is certain that Doe's competitors are thinking about it. Drop in and have a talk with them. Secure permission to make a survey and later bring in your recommendations in concrete form together with the contract.

If you have done your work thoroughly and cleverly, you will secure the signature on the dotted line.

If no shoe store in your city has now installed air conditioning, you can point out the advantages of being a pioneer. Try to work up enthusiasm in the whole merchant group in your city—for if the majority of stores are air conditioned, shopping will be a pleasure and the people will come "downtown" in the summer to secure

(*Continued on Page 16, Column 1*)

Temprite Feature Series
(No. 4)

MULTIPLE INSTALLATIONS

TEMPRITE units operate in multiple with no sacrifice of temperature control, capacity or efficiency. In addition, they do not interfere with the operation of the other cooling units with which they are duplexed.

Refrigeration Distributors

Temprite Beer, Water and Beverage Coolers have achieved outstanding success in the field. We shall be glad to furnish you with complete information.

TEMPRITE PRODUCTS CORPORATION
(Formerly Liquid Cooler Corp.)
"Originators of Instantaneous Liquid Cooling Devices
Detroit - - - - - - Michigan

We have always avoided the temptation of advertising our products as "the best". We realize that no company has a monopoly on brains and manufacturing facilities. We are content in pointing out that no units give more dependable service than those produced by Universal Cooler.

UNIVERSAL COOLER CORPORATION
DETROIT, MICHIGAN BRANTFORD, ONTARIO

MANUFACTURERS OF A COMPLETE LINE OF HOUSEHOLD AND COMMERCIAL REFRIGERATION EQUIPMENT

RHODES

(Continued from Page 15, Column 3)

relief from the stifling heat of their own homes.

I watched the reactions of the customers in one of Philadelphia's fine shoe stores during a hot, humid July day. The store was air conditioned. Women came in, sat down, and were perfectly content to take a magazine and read until such time as their favorite clerk was ready to try on.

I could sense that they wished to get cooled off and did not want to hurry away until they were comfortable. They looked at many pairs of shoes and sales, I am sure, were multiplied as a result. Lost sales are minimized when the nervous system is being rested and the proper buying perspective is present.

Theater Owners Sold

Theater owners do not have to be sold. They either buy air conditioning or close up during the summer months.

It seems at present that the most difficult job is to sell the home owner. In this field select very carefully the prospects. Go to your local banks and secure the names of people who have incomes of, say, $6,000.00 per year or more and own their own homes. The list may be augmented by talks with your friends. In the metropolitan cities you can purchase such lists.

Call on these prospects and chat with them about air conditioning. Tell them in simple words what may be done. Dispel the illusion that it is a "new thing" and not perfected—and will be perfected at a later date and will be cheaper.

Fear of Damaging Property

There is one peculiar reaction that almost every home owner has—he is afraid you will deface his dwelling. You must be clever enough to quiet his fears in this respect. If the job is to be a cellar installation with ducts to one or more rooms, look for a place to conceal the ducts.

Sometimes you can rob the back of a built-in bookcase to run your flues. Nearly all built-in bookcases are too deep and there is waste space back of the books. If the house is very finely decorated and the owner fears that the standard walnut or mahogany unit job will be unsatisfactory, you can secure from the factory an unfinished case and decorate it to conform with his room. Good decorative painters are available in nearly every city.

In your conversation with the home owner be sure to find out if anyone in the family has hay fever or asthma (many have such allergic diseases); then point out how in many cases such diseases are controlled by air conditioning—how the sufferers may even leave their refuge for a period during the day if they return to it for rest and sleep.

To the socially minded prospect suggest that he will be very popular with his bridge and poker playing friends if he has an oasis in the midst of the heat.

Now as to whether or not he can afford it. He owns a motor car costing around $1,500.00. What you propose to put in will cost no more than the car and no more to run it, and he will get far greater happiness out of it. The motor car is the best analogy to crystallize the cost-service-happiness concept.

Will Be Large Industry

Whither air conditioning? Economists inform us that it is likely to be a three hundred million dollar industry inside of the next ten years. It is my opinion that this is an understatement of the facts rather than an overstatement, as the industry is doubling its sales volume each year.

A method of visualizing the importance of air conditioning is to regard the size of the ice plants in your city. A city of 100,000 population will have an ice plant of 150 tons capacity. There are at least four office buildings in such a city which will require 500 tons of refrigeration or more to air condition them.

If the city is a prosperous one, in ten years' time it will have not less than 5,000 tons of air-conditioning refrigeration and rates for electricity will not exceed one and one-half cents per kilowatt hour. Air conditioning will not be conducted by means of ice as most office buildings will be making their own refrigeration for less cost than the local ice plant. The tail will never wag the dog.

Freon Equipment

In order to make a success of this industry it is noteworthy that the great refrigeration machinery companies of the United States have specified Freon exclusively in their equipment. There is a moral obligation on the part of reputable manufacturers to safeguard the health and life of the people.

In selling Freon air-conditioning equipment the salesman should stress the point that it is safe and that should an accident happen to it and the refrigerant escape from the system, it will not damage the health of the occupants of the room, or ruin their foodstuffs, books, hangings, and other decorations.

Kinetic Chemicals, Inc., is advertising in magazines which reach those who purchase air conditioning. These advertisements benefit the industry as a whole. You, too, can help in benefiting the industry by mentioning the safe features of the refrigerant Freon.

PEARSON

Says Buyers Are Looking For Quality

Business-like and matter-of-fact as his organization, C. A. Pearson, national commercial supervisor for York Ice Machinery Corp., notes that price is no longer the major factor in a buying decision.

Quality workmanship, manufacturer's prestige, efficiency, and long life are now of prime importance when the purchaser makes up his mind, he finds.

But perhaps you'll hear it better from,

C. A. Pearson:

Our merchandising program on commercial refrigeration and air-conditioning equipment, which our distributors are now selling in some forty (40) points throughout the country, supplements the sales activities of our extensive branch office organization. This provides more intensive coverage in the special field of small refrigerating equipment.

Market reactions this year very clearly indicate a change in the buyer's attitude. After the past few years of very restricted buying, when people felt the necessity for purchasing equipment almost entirely on price, there is now definite evidence that quality is once more a prime consideration.

We have noted this trend not only in the type of inquiries we are receiving, but also in the orders.

Realizing this change in market conditions, we are strongly encouraging our dealers and distributors to take every advantage of it by "selling up in 1935."

This strengthened market makes it easier to sell a quality product, backed by years of careful engineering with precision manufacture and an extensive field organization of trained sales engineers.

High efficiency, low operating costs, and service-free dependability over a long period of years are vital sales features which we are stressing. Quality buyers look for sales features of a mechanical nature, and never before has a history of accomplished results in the complete field of refrigeration been of more value in the sale of commercial equipment.

Buyers have come to appreciate both the value of properly balancing the condensing unit with the low side evaporators, and the whole range of engineering experience in correct selection of equipment. This aids in convincing the purchaser that only a quality product will give quality service.

It is a particular satisfaction to us that our new line of Freon condensing units was designed especially to meet just such a demand as outlined above.

To help our distributors capitalize on it, we have established commercial divisions at most of our branch offices, and manned them with factory trained engineers. Our branches maintain adequate stocks, of course, so that the distributor is not required to make a large investment in stock.

ALLEN

Lists Sales Features of Brunner Products

W. C. Allen, sales manager of Brunner Mfg. Co., sells compressors and high sides for use in commercial refrigeration. Some of his accounts (27, he says) are manufacturers who hook up Brunner jobs to more complete equipment which they sell under their own names. He has also some 300 dealers.

To Mr. Allen a discussion of methods of making the approach, effective means of demonstrating the equipment, and closing the deal are just so much fol-de-rol. He is selling compressors and high sides; and all his customers seem to want to know is: How is it made? (Also, we imagine: How much does it cost?)

So he contents himself with a simple recital of the things about Brunner compressors and condensers which are different from those of other makes. He makes an especial point of features which solve or prevent service problems.

With no frills, furbelows, or showmanship whatsoever, Mr. Allen will rise and tell the Brunner story:

The 1935 line of Brunner commercial refrigeration equipment embodies 49 models, covering a size range from ¼ to 15 hp. Methyl chloride models for complete range of commercial applications, Freon models for comfort cooling and air-conditioning applications, and sulphur dioxide models for the replacement trade are included.

All commercial compressors from ¼ to 2 hp. are two-cylinder type. The sizes from 3 to 15 hp. employ an advanced V-type four-cylinder compressor—four cylinders operating with only two eccentrics and two rods, a master and auxiliary rod such as employed on all radial aeronautical engines.

The advantage of this design is a material reduction in the frictional load, resulting in greater motor efficiency. Many less parts are needed than used in conventional designs.

All compressor capacities have been increased for 1935. Valves have been redesigned; both suction and discharge valves are mounted in a single valve plate, doing away with piston valves.

Valve Servicing Easier

Servicing of valves is now easier. A new valve plate can be easily and economically replaced, making it unnecessary to lap valves in field service. The valve leaf is stainless steel.

Another advance in the new Brunner 1935 models is the Silver Dome cylinder head—a scientifically designed finned cylinder head that reduces head temperatures, thereby increasing volumetric efficiency.

This newly designed cylinder head does away with water-cooled or refrigerant-cooled heads, with their service problem resulting from leaks caused by porous castings.

The heart of any compressor is the seal. Brunner compressors are equipped with a sylphon bellows seal. No abrasives are used in the lapping process. The shaft collar and seal nose are lapped on specially built machines, which use cast iron lapping blocks running in a continuous bath of clean oil.

All bearing surfaces and cylinder holes are diamond-bored before honing. Tolerances are kept to very close limits. Every compressor is "run in" on special "running-in" stands, after which it is given a volumetric test before being passed for assembly into a high side.

In the selection of components, Brunner engineers have standardized on Wagner motors, Detroit Lubricator controls, Weatherhead valves and fittings, Dayton Cog belts, and Penn water valves.

Excessive head pressure, the cause of many field service problems, is practically eliminated in Brunner equipment by the use of oversize condensers. Both air- and water-cooled condensers are the largest per hp. used in the industry.

Every high side, after assembly, is given a 24-hour refrigerating test. Every Brunner compressor or high side is identical in design and assembly.

In a little more than two years, the Brunner distributor and dealer organization has grown to more than 300 accounts. There are 27 manufacturers using Brunner compressors or high sides as components to their own products.

Our business for the first quarter of 1935 is 155 per cent ahead of the like period of a year ago.

DUNN

Recommends Competent Engineering

Commercial refrigeration coils belong to a separate classification of the refrigeration industry, a division which has become quite an important entity of its own. Some exceedingly strong—if comparatively small—manufacturers comprise this "division" of the refrigeration industry, and competition is keen and frequently bitter.

A full page of pictures of leaders of this industry—all taken with the editor's miniature camera—will be found on page 28 of this issue. Readers may recall the story which appeared in the March 20 issue of Electric Refrigeration News (in which the "Nathan Hale" boner was pulled), about the difficulties these coil manufacturers are having in trying to get together on a code.

One entire strip of those pictures is devoted to an interesting gentleman by the name of Morrill Dunn, vice president of the McCord Radiator & Mfg. Co. Mr. Dunn probably knows as much about the problems of manufacturing and marketing coils as any man alive today, and has summarized some of his knowledge in the really admirable essay which follows:

Like almost everybody else in this business, Mr. Dunn has an axe to grind. He does it neatly, however, and without calling names, in his concluding paragraphs. Gentlemen, Mr. Dunn:

We are primarily interested in selling refrigeration and air conditioning surface, the market for which can be broadly divided into two groups: (1) The manufacturers of mechanical refrigeration, refrigerating machinery, display cases, commercial coolers and (2) jobbers, distributors, and contractors.

The first group, in theory, is comparatively simple to handle. The manufacturers know what they want in performance, in design, size, surface requirements, etc., and know which surface manufacturers have the capacity and resources to give them the deliveries required.

The surface manufacturers who can handle the large contracts are not many, and all of them turn out a serviceable product. Profits are very small and competition very keen. Price is almost the controlling factor in a sale.

The high pressure salesman is out. It is a case of old-fashioned plugging, continual contact with engineering, purchasing, and sales departments, convincing each one of the advantages we believe we have in design, construction, laboratory facilities, and being able to make deliveries and take care of emergencies.

But when a sale is made there is no come-back on us for inadequate performance on an approved design.

The other type of sales is a much harder problem.

Generally speaking we prefer to deal with jobbers and distributors rather than with direct agents. The great difficulty is in getting a concern which combines sales outlets and financial ability to handle them, with the technical knowledge to solve the ordinary problems of its customers.

The contractor, who is really our final sales outlet, both for air conditioning and commercial refrigeration, either through the jobber or by direct sales, is our real problem.

The cooling of restaurants, stores, houses, is generally and loosely classed as air conditioning. It is a comparatively new and complex phase of commercial refrigeration, and requires exact knowledge of a highly technical nature to competently lay out an air-conditioning job. Few jobbers or contractors are equipped to do this.

We recommend our customers either to get a competent engineering firm to draw the specifications for an installation, or refer it to the surface manufacturer for his recommendation.

If the results are not satisfactory the condition is obvious immediately, and can and will be corrected at once by the responsible firm to whom the engineering has been referred.

In strictly commercial refrigeration work the situation is quite different. Years of practical experience and the collection of engineering data, have evolved almost universal acceptance of what constitutes good practice, so there is no excuse for the installation of an inadequate job.

The contractor, however, is operating in one of the hardest and most irresponsible competitive fields. He has to fight machinery manufacturers who furnish the complete installation, compressors and coils, besides his competitors in his own field, many of whom lack the knowledge to be in it at all.

Frequently he encounters a competitor making the recommendation on the basis of a 40° temperature differential, whereas a 60° temperature differential should have been figured in determining the amount of surface required on this particular job.

The result, of course, is increased power consumption, excessive frosting of coils, a lower relative humidity,

(Continued on Page 18, Column 1)

This is one of several characteristics of Virginia Methyl Chloride which make it the ideal refrigerant for use in Ice Cream Cabinets, Air Conditioning Systems, etc. Its exceptional purity—freedom from moisture and acidity—is positive assurance of satisfactory results. It is conveniently and economically serviced direct from our orange cylinders. Made by the makers of ESOTOO. The coupon will bring full information.

VIRGINIA SMELTING CO.
WEST NORFOLK, VIRGINIA

MAIL THIS COUPON Now

F. A. Eustis, Sec'y, Virginia Smelting Co., 131 State St., Boston, Mass.

Send me the literature I have checked. I am interested in receiving any additional literature on Electrical Refrigeration you may issue from time to time.

☐ Folder: Extra Dry ESOTOO (Liquid Sulphur Dioxide) ERN-4-10-35
☐ Folder: V-METH-L (Virginia Methyl Chloride)
☐ Folder: Transferring from large to small cylinders
☐ Circular: Physical properties of various refrigerants

Name .....
Street & No. .....
City & State .....

Choose ANSUL REFRIGERANTS
be sure of high quality

SULPHUR DIOXIDE

A product that has set a standard of comparison for years. Pure and bone dry with every cylinder analyzed to assure highest quality.

METHYL CHLORIDE

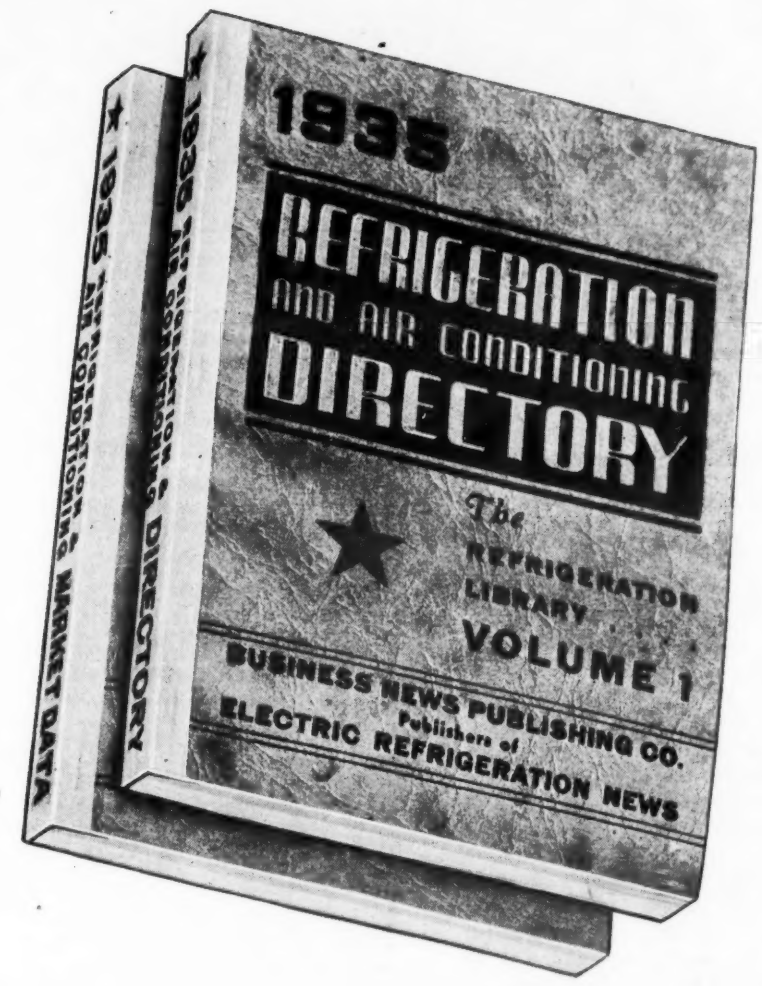
Low moisture and acid content guaranteed by analysis of every cylinder. It is fast freezing, stable and non-corrosive.

"Ansul's 20th Anniversary in the Production of Sulphur Dioxide"

ANSUL CHEMICAL CO.
MARINETTE - WISCONSIN

OFF THE PRESS! *NOW!*

1935 REFRIGERATION & AIR CONDITIONING DIRECTORY



Here are the contents of *Volume 1* of the Refrigeration Library—*The 1935 Refrigeration and Air Conditioning Directory*—now being mailed to those whose paid-in-advance orders are on file:

ALPHABETIC INDEX

Names and addresses of all companies which manufacture refrigeration and air conditioning products listed alphabetically. 20 pages.

DIRECTORY OF ASSOCIATIONS

Trade associations of refrigeration, air conditioning and allied industries, with official personnel. 12 pages.

TRADE NAME REGISTER

Alphabetical list of all trade names of refrigeration and air conditioning products and equipment identified with the product, name and address of the manufacturer. 32 pages.

GEOGRAPHIC DIRECTORY

Names and addresses of refrigeration and air conditioning manufacturers, together with executive personnel, telephone number and products, listed by states and cities. 64 pages.

CLASSIFIED PRODUCTS DIRECTORY

Products sold or used by the refrigeration and air conditioning industries listed alphabetically into related groups with names and addresses of manufacturers. 205 pages divided into the following sections:

AIR CONDITIONING SECTION

Air conditioning equipment, systems, humidifiers, unit heaters, special equipment, parts and accessories. 17 pages.

COMMERCIAL AND INDUSTRIAL REFRIGERATION SECTION

Beer and beverage cooling equipment and parts; carbon dioxide equipment; commercial cabinets and parts; commercial refrigeration systems; dairy, ice cream and soda fountain equipment; refrigerated trucks; unit product coolers; water cooling equipment and parts; industrial refrigeration systems and parts. 59 pages.

HOUSEHOLD REFRIGERATION SECTION

Household cabinets and parts; household refrigeration systems; household refrigerator accessories. 32 pages.

REFRIGERATION MATERIALS, PARTS, SUPPLIES AND TOOLS

Cabinet materials; compressor, condensing and cooling unit parts; electric motors, controls and parts; fittings, valves and parts; lubricating oils; metals, raw and fabricated; refrigerants, brines and chemicals; tools and supplies for production, installation and service. 86 pages.

MISCELLANEOUS ELECTRICAL APPLIANCES

Kitchen, laundry, heating and miscellaneous. 7 pages.

SERVICES AND SUPPLIES FOR PRODUCTION, INSTALLATION AND MAINTENANCE

Engineering and financial service; patent attorneys; motor repair service; testing service; schools; manufacturers' representatives; jobbers of replacement parts; and independent service companies. 26 pages.

The Refrigeration and Air Conditioning Directory, containing 380 pages, will be followed shortly by Volume 2 of the Refrigeration Library—the 1935 Refrigeration and Air Conditioning Market Data Book. The second volume is a veritable encyclopedia of information on refrigeration and air conditioning industries. All known facts and figures recording development up to date, systematically arranged and tabulated. Subdivision by territories and types of products for market and sales analysis. Included are household, commercial and air conditioning sales statistics—survey of distributive channels, merchandising activity, potential market and other data.

The 1935 Refrigeration and Air Conditioning Directory and the 1935 Refrigeration and Air Conditioning Market Data Book, (2 volumes), price $5.00 per set postpaid in United States. In combination with a year's subscription to Electric Refrigeration News, the price is $6.50.

Business News Publishing Co., 5229 Cass Avenue, Detroit, Mich.

DUNN

(*Continued from Page 16, Column 5*)

resulting in shrinkage of food stuffs, and finally a dissatisfied customer.

The customer will tear out the coils or make him replace them, and to protect himself this contractor will blame the coil manufacturer, and will replace the coils with another make and adequate capacity. The original manufacturer of the coil gets the reputation of making poor coils and the intelligent honest contractor has lost that job.

This particular form of competition is growing and seems to have received an added impetus this year. Its effect on all coil manufacturers is so damaging to the entire industry that a concerted campaign of education by all manufacturers of cooling surface for any purpose should be undertaken at once for mutual protection.

We always urge adequate and ample surface for every job and every kind of installation. This year, especially, our sales efforts will be bent to the education of our last link to the ultimate purchaser, the contractor, and to the ultimate purchaser himself, of the necessity and economy of using sufficient cooling surface for his jobs under all conditions.

KRITZER

Suggests Additional Applications

One afternoon recently the writer took a long ride out to the Chicago plant of the Peerless Ice Machine Co. to see R. W. Kritzer, president of the concern. Peerless is one of the leading manufacturers of finned coils, as well as other refrigeration equipment.

"I've got the most beautiful sight in refrigeration to show you, George," he said. "Come down and watch refrigerant flow through one of our interior finned coils. You'll never forget it."

True enough, it was a sight which might merit some claim to a degree of beauty. He had two glass tubes emerging from some coils. One of them had no interior finning. Through it the refrigerant flowed in a little stream along the bottom. Most of the tube was untouched by the liquid in its course.

Before we could see "the beautiful sight" in the other tube it was necessary to scrape off an accumulation of frost—visual demonstration that this tube was considerably colder than the other (both emerged from and emptied back into the same coils).

And then we saw it: The refrigerant was whirling round and round the tube in its onward course, washing all areas of the tube in its spiral movement. Interior finning—which looks like rifling—does the trick.

Pictures of Dick Kritzer and his factory, which we took with the sensitive little camera that afternoon (the factory was pretty dim, too) appear on page 28 of this issue.

This writer will always have a warm heartspot for Dick Kritzer, for he was the first man in the refrigeration industry to be nice to us, and the first one to buy us a meal!

When we were covering the famous code battle in Chicago during the summer of 1929 as a cub there came a time when we had to stand before an unofficial jury of industry brass hats and plead our own case as to why we should be allowed to listen in on things.

Mr. Kritzer listened kindly and approvingly, and it was chiefly through espousal of our cause that the "big shots" allowed us to stay.

We still like him a lot, and admire him as a really brilliant man. So maybe we're forgiven for remarking that his speech, published below, lacks dramatic interest. So did much of the other material submitted for this issue. If you think it's wordy now, you should have seen it before we edited it.

But if you are a buyer of coils, probably this will be of real interest to you. Anyway, we promised 'em all a chance to talk, so we'll have to listen.

Introducing our very good friend, fellow alumnus of the University of Illinois, and successful and respected business executive, Dick Kritzer:

Peerless enters the 1935 commercial field with a complete line of fin coils and refrigeration accessories for every purpose.

There are over 25,000 possible combinations of Peerless coils. Any one of these 25,000 can be shipped from our Chicago or New York factories the day the order is received.

Our old customers are familiar with this service. It was a type of service originated by Peerless. With the opening of the Peerless New York factory last fall, the majority of commercial ice machine installations of this spring can be handled with Peerless equipment, with installation following the day of receipt of order.

The commercial ice machine dealer's profits are directly dependent upon his turnover. The ultimate customer will delay his decision on an ice machine through months of haggling, but the day he places his order he expects the installation within the next two or three days.

It is good business to install it immediately. The long wait between signing the order and depositing the money on the part of the customer is eliminated. There is no possibility of competitors interfering with the sale.

It is also good business on the part of the dealer to get his machines installed immediately after the order is received. His money is tied up for a much shorter period, and by immediate installation he is able to take twice the number of jobs that he ordinarily would be able to take.

At this season of the year the capital of the average ice machine dealer becomes tied up in inventory warehousing machines, etc. He is unable to stock coils because of the tremendous variety of sizes that are necessary to meet conditions in the field.

By taking advantage of Peerless service he is able to make a quick turnover on his commercial ice machine business. The capital required by one job is immediately available for the next job.

Peerless does not believe in warehousing coils. By providing the facilities for manufacturing the same day any particular type of coil that might be required, useless warehouse stocks are unnecessary. Obsolescence of such coils and the losses incurred in holding them have put many ice machine dealers out of business.

Peerless fin coils and refrigeration accessories do not come out in yearly models. Improvements are incorporated in their design and manufacture as fast as they prove up in the laboratory and field service.

"Where there are no joints there can be no leaks." That is the slogan of the Peerless line. Fin coils made from continuous tubing with elimination of soldered return bends was the first definite progress in fin coil construction.

Low Upkeep Costs

Many thousands of Peerless fin coils in use today are paying their owners a premium in low plant up-keep cost. There is no possibility of soldered joint breakdown or corrosion to increase refrigerant charging costs. This is a particularly desirable feature with the use of Freon where small leaks usually go undetected and expensive refrigerant recharging is often necessary.

Peerless is in the middle of its second year of field use of "Interior Finning" and "Rifled Tubing." This is an important development that is of extreme interest to every refrigeration dealer.

In the past considerable emphasis has been placed on the question of fin contact to tubing in fin coil work. Until Peerless originated and equipped fin coils with "Interior Finning" nothing was done to increase the conductivity from the tube walls into the refrigerant.

'Interior Finning'

The latest Peerless spiral "Interior Finning" has shown interesting results in tests and field work. We are rapidly approaching a point where 50 per cent of the fin coil surface will match the results of 100 per cent.

The salesman's stock-in-trade is imagination. Show me a sales manager with imagination, and I will show you a successful sales organization. Commercial refrigeration is in its infancy. There is not a single commercial machine installed today that could not be made better and more useful to its owner.

Originally, commercial refrigeration in the smaller sizes was confined to one machine to cool the main walk-in refrigerator. This was followed by the addition of display counters and lately with the addition of display windows, but at this point the average commercial refrigeration dealer has stopped.

Every store owner upon proper presentation can be sold additional refrigeration. Traveling around the country one notices that very few butchers' windows are properly refrigerated for summer display. The Peerless catalog covers many suggestions on how the ice machine dealer can lay out such windows for his various customers.

Vegetable display stands are another potential source of refrigeration orders, and yet they are ignored entirely by the average ice machine dealer. Exposed coils mounted over vegetable display racks not only present a pleasing appearance but impress the customer with the fact that refrigeration is applied to the vegetables.

Many retail stores now display atomized water.

A small water cooler can be mounted directly underneath the display counter in the water line so that the water thrown out over the vegetables is thoroughly chilled, which makes a material difference in the keeping qualities of the vegetables themselves.

This idea can be further combined with a cold drinking water fountain for the use of customers.

With the flexibility of the Peerless line and imagination on the part of the ice machine dealers, the price of every commercial installation can be raised from $200.00 to $500.00, with a better profit to the ice machine dealer and more satisfaction to the customer. In almost every line the salesman with imagination is able to increase his volume, and because these additional items are non-competitive every job will represent a profit.

The ice machine dealer profits from quick turnover, and rapid installations and good installations that have no come-backs.

BATAILLE

Describes Processes Of Manufacturing

Now for Gerald Bataille of Rempe. All of these coils boys, with the exception of McCord's Mr. Dunn, simply wrote long advertisements. In cheap trade papers they would be called "reading notices," or "write-ups," and would be accepted as editorial filler along with an advertisement.

We've avoided them like we would the Black Plague around here, and it kills us to print such stuff now, even if we did invite the boys to speak what was on their minds.

Not even if The Boss promised us a gold-inlaid, oak-panelled office in the New Building, with authentic scent of new-mown hay right from the Wabash Valley being wafted through the air-conditioning system, and half a dozen blonde secretaries picked from the front line of "Anything Goes" would we stick around here if reading and printing "publicity" of this sort were a regular part of the game.

Please don't be offended, Mr. Bataille. We don't blame you a bit for seizing the opportunity to boost your products. But we simply had to relieve our feelings somehow, and we don't want readers to get the idea that there may be something to that rumor we've sold out, or something (see Letters column).

Come to think about it, a product story is just about all a coils manufacturer has to tell dealers.

Most salesmen don't know too much about coils—and how they are made—anyway; so here's a chance for them to further their education.

But what, gentlemen, is a dealer to tell prospective customers who don't feel like investing a dime in the most efficient coil ever built? That's what readers of the News want to know.

With profuse apologies for our bad temper (maybe it was something we et) we introduce Gerald S. Bataille:

Rempe Co. has had 45 years of experience in the exclusive manufacture of coils. A few years ago it was regarded as the largest pipe coil manufacturer in the country. And making refrigeration coils since 1890 is a record worth talking about.

In two short years Rempe Co. has built up it's fin coil manufacturing facilities to a point where today it can meet every possible demand from the field. We are manufacturing fin coils of every description for all types of refrigerants to meet the complete requirements of commercial applications.

We are presenting absolute facts about our fin coils, pointing out the "built-in" value these coils possess. Present these same facts to your prospects, and you will find it will get you the order.

First we wish briefly to discuss our methods of manufacturing the coil. The Rempe method of creating *visetight* contact of the collared fin onto the tube is in itself quite an issue.

After having assembled the fins onto the tube, we then expand the tube seventeen-thousandths of an inch, making the collared fin bite into the tube. This provides a fin with an eighth of an inch collar hugging the tube, and increases the efficiency of the fin.

Then on walk-in cooler fin coils we incorporate two outstanding sales features in fin coils, the double fin and the continuous tubing. The double fin adds to the overall efficiency of the coil, and the continuous tubing eliminates the hazard of leaks in the fin coil.

Now sum up. The double fin, continuous tubing, collared fin for more fin efficiency, and *visetight* contact. That's not all. We also pride ourselves on making a clean cut coil. Not only for appearance but for performance. No impediment for good air circulation. The air may pass with proper velocity through our fin coils on any angle.

There is no blocking off of primary surface or anything that would tend to lessen the capacity of performance of the coil.

Size of Coil Line

The complete line of fin coils we manufacture can only be realized when you stop to consider that we make galvanized steel coils, copper fin coils, aluminum fin coils, on ⅝, ¾, and 1 inch tubing, and with every fractional inch spacing from seven fins to the inch down to 1 in. spacing.

We also manufacture midget fin coils for top display cases, where heavy duty refrigeration is required in a limited space. Our standard fins are 3x3 in. and our midget fins are 1½x1½ in.

We manufacture unit coolers in convenient sizes for all types of refrigerants. These unit coolers are equipped with heavy duty pressure fan blades, and are properly powered with motors designed for this purpose.

Fin Coil Unit Cooler

All fin coils used in unit coolers are either hot tinned or galvanized, according to the refrigerant used. This bonding of fins for forced draft duty makes a permanent and efficient unit.

And now Rempe is producing a motorless unit cooler. For more than eight years this unit has been developed, and at last there is available a unit cooler with no moving parts that uses no power to operate other than that used by condensing unit. We have named it "Autodraft" Unit Cooler. Its application is especially adapted to walk-in coolers.

Rempe air-conditioning coils are available for all types of refrigerants, brine, or water circulation, and can be had for counter flow, cross current, and headered construction.

These fin coils are made up of copper fins on copper tubing or steel fins on steel tubing, spaced seven fins to the inch. Complete performance data on these coils is available.

Rempe has introduced it's thermostatic valve this year. It is sensitive, it will hold settings, and the needle is free acting and cannot jam. The power element assembly may be removed. Entire mechanism is permanently sealed against moisture, and it features a non-corrosive needle and seat.

If you will point out to your prospects the outstanding features of Rempe products, there is no question but that your sales volume will substantially increase. A prospect buys merchandise on the strength of what he sees and believes.

RANEY

Traces Developments In Thermostats

Another product story comes from E. C. Raney, general manager of The Automatic Reclosing Circuit Breaker Co., regarding

(*Concluded on Page 19, Column 1*)

RANEY

(*Continued from Page 18, Column 5*)

Ranco thermostats. Mr. Raney—naturally, we suppose—is more than just enthusiastic about the new Ranco thermostats.

He's positively ecstatic. You should have seen his speech before we finished pruning some of the "superb-latives" (there's a new word) from it.

We can understand why Mr. Raney is so proud of his products. But we have to preserve peace and order here in this convention, and we don't want to hear any Bronx cheers from the Penn or Minneapolis-Honeywell sections.

Okay, Mr. Raney, you tell 'em—minus the rainbow adjectives!

To Ranco thermostat distributors and dealers. Gentlemen:

I welcome this opportunity to address you on the subject of "How to Sell More Refrigeration in 1935."

This "New Kind of Sales Convention," sponsored by ELECTRIC REFRIGERATION NEWS, should appeal to every man in the industry—and as a pioneer manufacturer of controls for domestic refrigerators, the policy of having an annual "show down" of sales features is more than a little interesting to the manufacturer of Ranco products.

What is Ranco's contribution to the industry—in 1935? I answer the question as follows:

Thermostatic controls for domestic refrigerators, ice cream cabinets, and water coolers—Ranco type KR, made in five models to meet practically every need.

Ranco type KR thermostats are made with cases of stainless steel. They are compact and attractive units of exceptional ruggedness and rigidity. Just what the introduction of stainless steel is going to mean to the industry as a whole will be discussed briefly a little later on. In passing, however, let me voice the prediction that within a very short period stainless steel will be adopted by the industry generally.

As you probably know, Ranco developed the first thermostat especially designed for domestic refrigerators. Prior to the introduction of the first Ranco unit, thermostats in general use were adaptations from commercial installations—large, clumsy, complicated affairs difficult to install, uncertain in performance, and, compared with the units available today, very high in price.

Small Compact Thermostat

Early we recognized the vital need for a small, compact, dependable thermostat that could be mounted inside the unit—a one-purpose thermostat, specifically built for domestic use.

The first Ranco production job was liquid filled. It was relatively low in price, and it was the smallest and most compact unit that had been produced up to the time of its introduction.

Ranco engineers foresaw the need for a domestic refrigerator control that would not require frequent service calls. They realized that as the industry grew the service problem was bound to be a factor of constantly increasing importance.

With reference to the stainless steel base, frame, and case which characterize our 1935 models, it is obvious, of course, that the danger of breakage is almost entirely done away with by the introduction of the extremely tough, corrosion-proof material now used.

Ranco stainless steel thermostats are unaffected by moisture, and the effects of condensation and corrosion are eliminated. The inside parts of the thermostat are also corrosion-proof.

Stainless Steel Springs

The springs are made of stainless steel. All pivot points have machined knife-edge bearings for more accurate operation.

This year Ranco also introduces a "built-in" or permanently enclosed bellows. The bellows is built right into the housing. The protecting metal shield constitutes one end of the bellows. This unit is thoroughly protected against damage.

Because small copper tubing, when soldered, makes an unsatisfactory joint due to the tendency of the solder to break away easily, Ranco tubing where it enters the bellows, is brazed, not soldered.

An over-load unit is another important feature of the new Ranco thermostat. The heating coil is permanently self-centered, eliminating the necessity for positioning the coil after mounting. Instead of having an external construction, the heating coil is completely covered by a special ceramic material.

The cylindrical tube containing the resistance coil fits closely into a solder well—protected against vibration or faulty positioning—but instantly ready for extremely accurate operation when over-load conditions develop.

Constant inspection is maintained throughout the manufacture of these units—not only inspection of each individual part, but *progressive inspection* as the assembly work is continued.

The over-load element and all temperature settings are given complete inspection. Every thermostat is tested in our testing tanks, which are held at a constant temperature to 1/10 of 1°. The unit is calibrated—and then re-checked on all settings to be sure that they come within proper limits.

It has been said many times that a dependable thermostat is really the "brains" of the refrigerator. Upon the unfailing performance of this vitally important unit depend, to a great extent, the reputations of the refrigerator manufacturers and dealers. I feel sure you will agree that we are doing our part in promoting a still greater domestic refrigerator market.

HAUGH

Tells What Dealers Should Know About Product

A. T. Haugh, general sales manager of Sparks-Withington Co., reminds his dealers that they are doing business with an old, well-established manufacturer, that they have large and well-protected territories, and that they have some interesting features to sell.

Testimonial advertising and using the user are among the foundation stores of his program. As Mr. Haugh puts it:

Unless sales gears now functioning smoothly are unexpectedly stripped as result of radical sand or unpredictable legislation, the refrigeration industry in 1935 will set a new production record—and Sparton will more than double its last year's output.

Every home without one wants an electric refrigerator. Thousands of homes with obsolete models want new and more efficient refrigerators—and will buy them.

With a score of ingenious finance plans to choose from prospects with even fair responsibility will this year enjoy the health safeguards, the convenience, and economy of electric refrigeration. The nameplate on the product is definitely up to the dealer. Our job is to prove conclusively that the nameplate should be Sparton.

This factory shouts this, that factory yells that, while six others boast this and that and this, while the dealer knowing of last year's "dumps" and of inside direct prices to price-cutting department stores wonders what it is all about, and sharpens his pencil to figure how he will make money.

Manufacturers Reputable

First string refrigerator manufacturers are reputable, a visit to almost any large metropolitan dealer will reveal "jallopies" built by production geniuses who promised to revolutionize the industry.

Reputation, integrity, and stability are the first things a good dealer wants to know about the company back of the product, and in this connection Sparton points to its 35 years of building precision electrical products.

The dealer wants to know about the consumer satisfaction that is built into the refrigerator he sells, because his welfare is wrapped up in what the product will do during year-in and year-out service.

Most of all he wants to know—and should know—if every alley and loft and curbstone dealer in his neighborhood is going to have a franchise. He has had experience in digging up good prospects, spending time with them, only to lose the sale to some alleged dealer operating out of his hat.

Sparton restricts its franchises, gives its dealers better than an even break, so that when the prospect has learned about the exclusive Sparton Antifrost Clock that automatically and regularly defrosts his refrigerator the sale and profit is made without throwing the deal into a lottery, with odds only a little better for the dealer than the Irish Sweepstakes.

Sparton's Vegabin

Sparton dealers say that the Vegabin, the three-section compartment at the bottom of Sparton Extra Feature Refrigerators for vegetables and other food not requiring refrigeration, is one of Sparton's most important features.

This Vegabin is separately constructed so that it is not necessary to open the refrigerator door and flood the interior with warm air when foods in the Vegabin are wanted. However, Sparton's extra space Baskador, handishelf, and trigger ice tray release are helping to make sales every day.

Selling by means of testimonials and recommendations of satisfied users has been one of the leading features of the Sparton merchandising program. This type of merchandising cannot be recommended too strongly to dealers.

For instance: Fast freezing has been and is being claimed by everyone. A letter from Glasgow-Stewart Co., Charlotte, N. C., written by Mrs. B. Y. Whelchel, secretary to Tom Glasgow, testifies for Sparton in this regard. It says:

"Mr. Snyder seems to think that we have had such an unusual record on a D-615 Sparton refrigerator here in our display room that he asked that I send it in to you.

"From the following recipe, we made five trays of ice cream. The

(*Concluded on Page 20, Column 1*)

THE 1935 KEROTEST CATALOG IS READY

The most complete and informative catalog on refrigeration valves, fittings and accessories ever published . . . contains all the latest developments in mechanical refrigeration installations of interest to every progressive engineer and service man . . . includes convenient tables, specifications and prices that will save you time and correspondence. Send for your copy today . . . a veritable handbook of information which you can't afford to be without.

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KEROTEST

HAUGH

(*Concluded from Page 19, Column 5*)

bottom tray froze in 50 minutes and in one hour and 15 minutes we had five trays of just the nicest frozen ice cream one could imagine, 1 pt. milk, 2 cups of thin cream, 1 cup sugar, 2 eggs, 2 pints fresh strawberries.

"To make five trays, of course, we increased the milk and sugar accordingly.

"Due to the absence of Mr. Glasgow and Mr. Stewart from the office a good time was had by all."

Our salesmen will be careful to point out that although the 1935 Sparton line of refrigerators are progressively stepped in price so that no sale should escape, all models use the dry expansion system. Many manufacturers use the flooded system in low-priced models, and the dry system in higher-priced models.

WANAMAKER

Presents How-to-Sell Ideas

Most conventions are "loaded." That is, some or all of the speakers are told what to say in advance, and their speeches are gone over very carefully. Far be it from us to run a convention that way, but we won't deny the allegation that there may have been a bit of collusion in the next speech.

One of the things we like about Bill Grunow and his gang is the fact that they don't care much what you say about them so long as you say something. So we took a great many liberties with this next last-minute speech, presented by Duane Wanamaker, advertising and sales promotion manager of General Household Utilities.

We leave it to readers to guess how much of this speech on how to sell more Grunow refrigerators is the way Mr. Wanamaker would say it, and how much is the way you think he should say it.

Gentlemen, you will now hear a model speech by Duane Wanamaker:

Thinking salesmanship implies analyzing every step of the job, then formulating solutions for each problem connected with it.

Before he should even attempt to sell his product, the salesman must be thoroughly familiar with the basic considerations that normally control the buying of refrigeration. Factors which enter into the "buying picture" insofar as Grunow refrigeration is concerned, are: convenience, economy, sanitation, health, dependability, and pride of ownership.

The Grunow refrigerator is primarily a modern convenience, and should be sold as such. In addition to understanding thoroughly the features which make Grunow refrigerators different from all others—and we assume he does, or he wouldn't be working for us—the salesman should understand the following basic and fundamental appeals:

Convenience

The Grunow refrigerator is scientifically designed, and compartments for food are conveniently arranged.

Without any mess, or the use of an ice pick, ice is easily obtained in the popular and stylish ice cube form. To be able to serve ice cubes to your guests is a mark of distinction. To prevent wastage unused ice can be returned to its place in the cube trays.

With a Grunow in her kitchen, the housewife is no longer tied down to her home to await the daily coming of the ice-man. Her life and sphere of activities are thereby greatly enlarged. We submit that modern refrigeration is thus a great boon to husbands, for it helps remove one of the common causes of dissatisfied wives and nagging.

Because it is automatic in its operation a Grunow refrigerator requires practically no attention on the part of the owner. Its low-pressure refrigerant, Carrene, eliminates the necessity for a seal, one of the commonest causes of trouble.

The Grunow refrigerator is on the job continually, night and day, protecting food so that there is no question of spoilage. It can be regulated to function whether the family is home or not.

Removal of ice cubes for beverages or other purposes does not affect the temperature of the food compartments, as it does when you take some of the ice out of an ice-box.

Once a Grunow refrigerator is installed the necessity for cleaning up the mess attendant to the old-time delivery of ice is eliminated.

Grunow refrigeration permits the housewife to plan ahead and make up menus for days in advance, whereas, formerly it was a day-to-day proposition because food could not be kept for long periods.

Varied menus are made possible, as leftovers do not have to be used immediately, but can be kept and served several days later.

Economy

Ice bills are eliminated.

Cost of electric current for the Grunow refrigerator is far less than the cost of former ice bills.

Grunow mechanism is simple, accessible, and economical. It can be serviced right in the kitchen, for there is no obnoxious refrigerant to discharge.

Left-overs may be preserved and made into appetizing dishes.

Because the effective sanitation and proper temperatures maintained by the Grunow do not permit bacteria and mold formations, many doctor bills are thus saved.

The housewife saves money by buying foodstuffs in large quantities, secure in the thought that the food will keep in her refrigerator.

Purchasing a Grunow is in reality making an investment, when you consider the savings that accrue by eliminating ice bills, reducing doctor bills, preventing food losses, and permitting more economical buying.

Quality of all materials, excellence of workmanship, and exclusive design of the mechanism built into the product, make the service and maintenance cost of owning a Grunow nominal.

Sanitation

Interior design of the Grunow cabinet makes cleaning a pleasure for the busy housewife. No unsanitary encrustations are possible in a Grunow refrigerator.

Health

Green, leafy vegetables and other perishable foods can be kept crisp and fresh in the Grunow.

Mold and yeast formation is checked by the constant temperature maintained.

Dependability

Grunow is working constantly, 24 hours of the day.

It's temperature is constant, and well under the danger point. The hottest days experienced in the Arizona desert are taken in stride by the powerful, well-insulated Grunow.

No attention on the part of the owner is required for Grunow operation. Defrosting is automatic.

It's exceptionally easy to service—when, as, and if it may need it!

Pride of Ownership.

Grunow is a modern convenience. You aren't up-to-date until you own one.

Owning a Grunow is evidence of the husband's ability to provide well for his family. It will increase respect for the family among neighbors, friends, and relatives.

Although the Grunow refrigerator gives the impression of affluence, it pays for itself in service in a remarkably short time—thus converting a prestige-building luxury into a money-saving necessity.

Due to simplicity of line and in-built beauty, Grunow is one of the most attractive boxes on the market. Grunow was first in the field with a styled box, and its distinctive streamline design has been a model for the industry.

Grunow refrigeration permits the hostess to serve better food, more appetizing desserts. Its bountiful supply of ice cubes makes the host more popular, too.

Getting prospects is one of the most difficult aspects of salesmanship. House-to-house "cold" canvassing is generally conceded to be the best method of obtaining prospects, and is followed by our best dealers and salesmen. Such solicitation will normally produce a bigger return in salable prospects than any other method of prospect getting.

In house-to-house canvassing, every time the salesman tells the Grunow story he is building up background for himself, doing missionary work for the dealer, the manufacturer, and the product, and paving the way for future sales.

The law of averages insures that out of every 20 presentations (a good number for one day) a certain number of "hot" prospects should develop.

Obtaining the names of people who are, or who might be interested in electric refrigerators, from friends, acquaintances, business associates, or casual contacts, is an old but infallible method of adding to the prospect list and increasing sales.

In the game of find-the-prospect, the salesman should enlist his family's aid. By keeping their ears open for remarks indicating interest in refrigeration, and by talking casually at bridge parties, luncheons, and club meetings, the salesman's wife, mother, or near relatives can not only uncover prospects, but may implant ideas that will lead to sales.

After one member of an organization (such as a lodge, church group, club, etc.) has been sold a Grunow, follow-ups on other members of the group will often mean added sales.

Best method of all, perhaps, is "using the user." Every Grunow owner will want to help you locate other prospects, and will surely assist you—by written or oral recommendation—to close the sale. Cultivate your users, it will pay dividends. Sometimes the use of a small gift to Grunow owners who furnish names of good prospects is a valuable incentive.

Every person who owns a home, or is providing for a family, and who still uses an ice-box, should be considered a potential Grunow-buyer. So are young people who have just been married.

Obstacle No. 1 in the job of specialty selling is getting inside the front door. This isn't accomplished so easily when the salesman begins with the old stereotyped opening, "I'm Mr. Soandso of the General Household Utilities Co."

A good leading question, such as: "Mrs. ————, haven't your grocery bills been rather high recently?" or "Madam, would you like to know how to save $7.00 each month on your food bills?" will generally provide an opening. You can obtain the name of the lady-of-the-house from the neighbor you called on previously.

Talk first about the *prospect* and *her problems*, not yourself or your products.

Acting natural and at ease, so that you do not give the impression that you are just another salesman saying your prepared speech, is one quick way of influencing your listener's interest in you, and in your product.

Friendliness invites friendliness—this is one principle that no salesman can afford to neglect in his contact work.

Machine Demonstration

Few sales are completed until after the prospect has seen the machine and watched it work. As part of his sales presentation, the salesman should endeavor to arrange a showroom appointment. This will not be difficult, if he has stressed the Grunow merits convincingly.

Since so much depends on the showroom demonstration, it must run smoothly to supply the final clinching argument in the completion of the sale.

One suggestion—it should be a command—in regard to demonstrations, is: always be sure that the Grunow refrigerator which you are planning to show has been plugged in early enough before the demonstration so that the ice cubes will be completely frozen, and so that temperature in the food compartment will be brought down to the correct level.

It is also a good plan to have the machine located where the prospects may inspect it from all sides, where they can examine it at leisure, without feeling any embarrassment. The box should be thoroughly clean, inside and out.

Food—natural or artificial—should be arranged properly and attractively inside the box. A short discussion of correct *location* of various types of foods will always heighten the prospect's interest.

Be prepared to forestall any probable objections which might rise in the prospect's mind, by answering them before they are voiced. This is not so impossible as it may sound at first.

Certain standard objections, such as: "The price is too high," "We'll get along with the old ice box," and the like can be avoided by timely and proper explanation.

Settling the near-Grunow-owner's mental doubts before they have had a chance to mature and affect his judgment always makes the salesman's job easier.

When completion of a sale hangs on price discussion, and the prospect can afford the refrigerator only by paying for it on time, *stress the monthly payments* rather than the total cost.

It is bad policy to begin a discussion of financial arrangements by quoting minimum down payments and maximum monthly rates. Mention the initial payment that you feel your prospect can afford, then, if necessary, bring it down till you have reached a mutually satisfactory figure.

Frequently, you may obtain a higher down payment by referring to the down payment made by some person whom the prospect knows intimately. Explaining that the amount of the initial payment influences the total cost is another factor which induces the buyer to make a more substantial down payment.

Frequently the arrangement between husband and wife in the purchase of a refrigerator is that he will pay the down payment while she will keep up the monthly payments out of household money.

If the salesman has any inkling of such an arrangement, he can raise the amount of down payment by subtly suggesting to the wife that the more her husband pays down, the less she will have to pay each month.

Arguments for Time Payments

With the hard-headed prospect who asserts that he can not afford to pay cash, and that he will not go into debt, two courses are open to the salesman:

(1) He can sell for cash by appealing to his pride as being the type of person who gets what he wants, and who is a good provider for his family. This type of prospect usually *can* pay cash.

(2) He can sell him a time-payment plan by elaborating on the economy aspect of purchasing a Grunow. Prove to him that in purchasing a Grunow on time he will be merely spending sensibly the money he will save by elimination of ice bills and food spoilage.

Convince the prospect that by purchasing on the monthly payment plan he will not be taking on an added obligation, since he will be making an investment with money that he would be paying out anyway. After the refrigerator has paid for itself, it should *pay dividends* for many years.

Remember, prospects today buy *terms*, not retail price. On your discussion of financial arrangements hinges much of your success in closing the deal. Be sure you have all the details of your financing plan well in mind, so that you do not hesitate or stumble in telling your story.

After the housewife is sold on the product, only half of the selling work is done. It is seldom that an article for the home in which the expenditure of a large sum of money is involved is bought by the wife alone. The husband likes a voice in the proceedings, too.

For each particular sale the factors to be stressed in order to complete the sale must be determined by the salesman's good judgment. Convenience of a Grunow refrigerator, its special mechanical features, and the fact that purchasing one is making a good investment, are points which influence most men.

If it is possible, try to interview the husband at home in the evening. He is frequently more disposed to consider your proposition at this time. There will be fewer interruptions, and all conditions will be more favorable for closure of the sale. Moreover, the wife will be there to back up your story. If a meeting cannot be arranged at the home, see the husband at his place of business.

Following is a list of suggestions for this type of follow-ups:

1. Assure the man that his wife really desires a Grunow, but that she is a little hesitant in pressing him for one, since it might seem selfish on her part to want something so emphatically designed for her own convenience.

2. When the call is made at the husband's place of business, you can make hay by subtly calling his attention to the contrast between the modern equipment in his office with the lack of convenience and old-fashioned equipment in his wife's kitchen. He has typewriters, dictaphones, calculating machines, and all the latest devices. Shouldn't his wife have an equal opportunity to do her work efficiently?

3. Play up the mechanical excellence of the Grunow. All men have at least a surface interest in mechanical things, and sometimes they enjoy "showing off" their knowledge of such things to the "little woman."

4. Stress pride of possession. Frequently the desire to have something a little better than his neighbor is the biggest incentive in the purchase of a refrigerator.

5. Sound out the wife on her husband's inclinations, hobbies, and interests, before going to see him. Such preparedness will enable you to meet your prospect on a more common ground, and particularly will enable you to make a clever and favorable approach.

6. Occasionally a husband may be put into a buying mood through penitence, when he is shown that the amount of money he spends for personal conveniences is really excessive in comparison with the low cost of a Grunow, which will mean untold conveniences for his wife.

When leading up to actual closure of a sale it is a good idea to refer repeatedly to the product as "Your refrigerator."

Emphasis on the economical angle, pointing out that the Grunow refrigerator will in a short time pay for itself, that the monthly payments are relatively low, that the elimination of ice bills, and losses due to food spoilage will, in the long run, save money, is one of the most-frequently used methods of closure.

Stressing the mechanical superiorities of the Grunow, telling about the background of its maker, and enumerating the advantages which the whole family will enjoy as a result of the purchase of a Grunow refrigerator, will often supply the final incentive needed to complete the sale.

Produce the contract early in the closure attempt. Get your prospect when his enthusiasm is at the right pitch. Don't talk too long—or you may talk yourself out of a sale. Fire when you see the whites of their eyes!

Final Points of Consideration

Final—and fine—points to which the Grunow representative should give his consideration include:

Use an even tone of voice in your sales presentation.

Never be seated while your prospect remains standing.

Cultivate a pleasant manner. Create a good impression by being neatly dressed.

Be enthusiastic about your work. Do not bring your personal troubles into the conversation.

Interview prospects at a time when they are least likely to be interrupted by other duties or business. If their attention is continually distracted, you're wasting your sales talk.

Be friendly and human—don't talk your product too much. Give your prospect a chance to express some of his ideas. The more the man you are trying to sell will "loosen up," the easier it will be to complete the sale.

Never let the attention of the prospect waver or wander.

Avoid arguing with your prospect; it's one sure way of losing a sale. Even when you feel confident that you are right, don't contradict him.

Stress the quality, performance, special features, attractiveness of Grunow, rather than the price.

Keep Up with the News

Keep in touch with the happenings in the refrigeration industry. Read ELECTRIC REFRIGERATION NEWS and keep yourself well informed on all developments in the refrigeration field, so that you may intelligently discuss points that are brought up. Remember that your prospect may have listened to the stories of half a dozen competing salesmen, and will be watching you to see if you make a slip.

When you have finished your sales presentation to a prospect whom you are reasonably sure could afford and should buy a Grunow, and he assures you that he is sold on the product, but "cannot afford it," you can feel pretty sure that there was a weak point in your sales story.

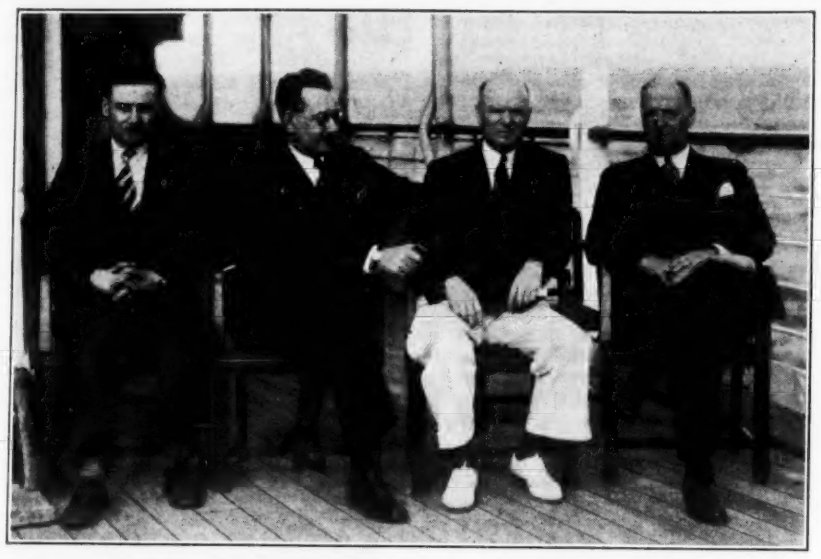
In such case, don't pass up the prospect and let some other salesman later sell him. Try to recall what you left out of your first presentation; then go back and convince him. Try a different tack. Find out his objections, and give him facts that will help the prospect answer these objections himself.

It is a good plan to map out the next day's work each evening, when the salesman goes over his prospect file. In general, early morning hours, those between 8:30 a. m. and 11:30 a.m., should be devoted to house-to-house canvassing. Follow-ups, both by means of telephone and personal calls, are best made in the afternoon.

Remember that a rainy day is a poor excuse for not canvassing. That's when most prospects are at home!

Most of the best salesmen work exceedingly long hours.

Officers of G-E Climateers



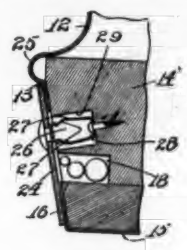
Officers of G-E's Climateers Club, which is made up of star air-conditioning salesmen, were elected on the club's annual trip to Bermuda. They are, left to right: High McKeagan, Brooklyn, sergeant at arms; Kenly Ball, Newark, secretary; W. H. Wheeler, New York City, president; and John Kane, Albany, N. Y., vice president.

PATENTS

Issued March 26, 1935

1,995,339. REFRIGERATOR THROAT LINING. Howard E. Blood, Detroit, Mich., assignor to Norge Corp., Detroit, Mich., a corporation of Michigan. Application Dec. 10, 1930. Serial No. 501,234. 5 Claims. (Cl. 220—9.)

5. A throat lining for refrigerator boxes comprising a box frame defining a compartment opening, a throat lining applied



1,995,339

to said frame about said opening, and separable tensioned means for yieldingly retaining said throat lining in place the separate parts of said means being rigidly secured to the frame and the lining respectively.

1,995,378. AIR FILTER. Verner Dahlman, New Lenox, Ill., assignor to Independent Air Filter Co., Chicago, Ill., a corporation of Illinois. Application July 9, 1932. Serial No. 621,717. 3 Claims. (Cl. 183—52.)

1. An air filter comprising an endless conveyor arranged vertically for upward and downward movement through a stream of air, and a series of flat plates traversing such stream and pivoted at one edge to said conveyor, each plate being louvered, the louvers in successive plates being opposed in direction, and contiguous plates overlapping to provide a tortuous path for the stream of air.

1,995,379. GASKET. Leonard H. Darbyshire, Detroit, Mich., assignor to Norge Corp., Detroit, Mich., a corporation of Michigan. Application August 8, 1932. Serial No. 672,865. 2 Claims. (Cl. 20—69.)

1. As an article of manufacture an endless resilient sealing strip adapted to envelop opposed shoulders of a peripheral enlargement adjacent the open end of a shell, comprising a resilient gasket adapted to embrace the exterior of the shell and envelop the opposed shoulders and carrying a bead overhanging the edge of the shell for engagement between the edge of the shell and a closure therefor, said resilient gasket being adapted to be stretched when in position whereby the resulting transverse contraction grips the shoulders of each enlargement to firmly retain the gasket in position.

1,995,385. TEMPERATURE RESPONSIVE DEVICE. Edward B. Foote, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a corporation of New York. Application March 30, 1932. Serial No. 602,095. 3 Claims. (Cl. 297—14.)

3. In an actuating mechanism for a temperature-responsive instrument, a thermo-sensitive element including two members having different coefficients of expansion, a closed transmission system including a chamber, a pressure-responsive device and a capillary tube through which said chamber communicates with said device, temperature compensating means in said chamber, said members being mounted to apply to said fluid through the wall of said chamber forces proportional to the differential expansion of said members.

1,995,390. SELF-ACTING REGULATOR. Karl H. Hubbard, Rochester, N. Y., assignor to Taylor Instrument Companies, Rochester, N. Y., a corporation of New York. Application March 1, 1932. Serial No. 595,993. 17 Claims. (Cl. 137—153.)

1. In a regulating device, a valve including a valve stem and a valve disc, means including a coil spring mounted to move said valve stem and valve disc, fluid-pressure actuated means operating through said coil spring for moving said valve stem and valve disc against the action of said spring, and rocking means for applying the force of said spring to said valve stem parallel to the axis thereof irrespective of the tilting of said spring.

1,995,409. HUMIDIFIER. Edgar E. Wayles, East Hartford, Conn. Application May 12, 1932. Serial No. 610,886. 7 Claims. (Cl. 237—78.)

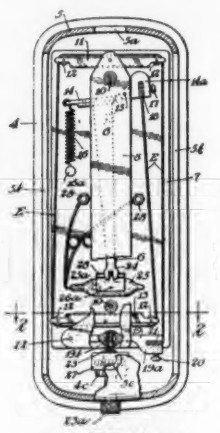
1. An apparatus for humidifying heated air, including in combination with a radiator of the type wherein a plurality of connected sections are formed of laterally spaced pipes or conduits, a tube of flexible porous material surrounding the intermediate portion of certain of the sections, resilient means for holding the porous material in contact with the enclosed sections, and means for supplying liquid to the porous material.

1,995,410. ABSORPTION REFRIGERATING APPARATUS. Edmund Altenkirch, Neuenhagen, near Berlin, Germany, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Jan. 23, 1934. Serial No. 707,957. In Germany March 14, 1924. 18 Claims. (Cl. 62—119.3.)

18. The method of causing the circulation of an absorption liquid in a circuit between the absorber and the generator of a continuous absorption refrigerating system which includes the steps of causing the liquid to absorb a gas in the absorber to thereby change the density of the absorption liquid, expelling the added gas in the generator to change the density of the liquid back to normal, and causing gravity to foster circulation of the absorption liquid due to the difference in density of the liquid in different parts of its circuit.

1,995,430. HUMIDITY REGULATOR. Carroll E. Lewis, St. Paul, Minn., assignor to Lewis Air Conditioners, Inc., Minneapolis, Minn., a corporation of Delaware. Original application March 3, 1930. Serial No. 432,932, now Patent No. 1,968,301. July 31, 1934. Divided and this application Oct. 30, 1931. Serial No. 571,987. 3 Claims. (Cl. 200—52.)

1. In a control device responsive to variations in moisture, a support, actuated mechanism for multiplying movement



1,995,430

mounted on said support, an oscillatory electrical switch mounted on said support and eccentrically connected with the movement multiplying end of said actuated mechanism, a set of guides mounted on said support and extending outwardly of said actuated mechanism and said switch, an elongated flat flexible ribbon extensible and contractible with variations in moisture wound about said guides in substantially annular form, substantially encircling said actuated mechanism, means for anchoring one end of said ribbon, the opposite end being connected to said actuated mechanism, said ribbon extending edgewise with reference to said support and thus efficiently exposed to the fluid medium surrounding the device.

1,995,527. REFRIGERATING APPARATUS. William W. Watt, Dayton, Ohio, assignor, by mesne assignments, to General Motors Corp., a corporation of Delaware. Application May 28, 1930. Serial No. 456,738. Renewed April 10, 1934. 20 Claims. (Cl. 62—116.)

1. A refrigerating apparatus comprising in combination, a sealed compartment, a refrigerant circulating unit within said compartment, a heat exchange device including a condenser connected with said unit and exposed to atmosphere outside of said compartment, an evaporator having a connection with said unit and another connection with said condenser, means including a portion of said heat exchange device disposed below the portion exposed to atmosphere outside said compartment for absorbing heat from said compartment and causing the heat to be dissipated to the atmosphere outside of said compartment.

1,995,667. AIR CONDITIONING APPARATUS. Vernon Cano, Elizabeth, N. J., assignor to The Cooling & Air Conditioning Corp., New York, N. Y., a corporation of New York. Application March 1, 1932. Serial No. 595,988. 8 Claims. (Cl. 98—38.)

7. A local recirculation unit for air conditioning systems comprising a cold air supply passage terminating in an upwardly directed injector nozzle, a discharge outlet in the upper portion of said unit above said nozzle, a recirculated air inlet between said nozzle and said outlet, and angular deflecting members associated with said nozzle and said inlet for directing the recirculated air in injector relationship above and across the tip of said nozzle.

1,995,805. CONTROL SYSTEM FOR AIR CONDITIONING APPARATUS. Roger W. Hastings, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Sept. 19, 1933. Serial No. 690,132. 3 Claims. (Cl. 236—44.)

1. A control system for apparatus for conditioning air in an enclosure, the combination of a fan for conveying air to the enclosure, means for humidifying said air, means for cooling said air, electrical circuits for the fan, humidifying means and air cooling means, respectively, a first switch for controlling said fan circuit, a second switch for controlling the fan and electrically connected in said humidifying means circuit, and a third switch for controlling the fan and electrically connected in said air cooling means circuit, whereby the fan circuit is energized when any one of said switches is closed.

1,996,000. FILTER. Victor C. Norquist, Kansas City, Mo., assignor to Butler Mfg. Co., Kansas City, Mo., a corporation of Missouri. Application Feb. 3, 1934. Serial No. 709,601. 3 Claims. (Cl. 210—182.)

1. In a filter having a filter casing, a plurality of filter members positioned within said casing in spaced relation to each other, means for supplying liquid to be filtered into said casing and means for withdrawing filtrate from said filter members; an annular frame surrounding said filter members, a plurality of pairs of scraper members loosely and removably carried by said frame and disposed to contact opposite surfaces of respective filter members, resilient means for urging said scraper members toward each other into contact with the filter member surfaces and means for reciprocating said frame.

Crosley Sales Gain 125% In Dallas Area

DALLAS—Sales of Crosley Shelvador electric refrigerators here are more than 125 per cent ahead of those for the same period in 1934, reports J. C. Mirus, vice president of the Dallas Electric Supply Co., Inc., Crosley distributor here.

Eleven dealers have been appointed to handle Crosley Shelvador refrigerators in the city of Dallas since Jan. 18, according to Mr. Mirus.

ONE DAY AFTER ORDER
LARKIN COILS are on their way to you!

LARKIN All Star FEATURES
NEW Sensational FEATURE STAGGERED TUBING
NEW INRFIN (Internal Fin) Construction
All Joints SILVER Soldered
CONTINUOUS FIN MAINTAINED
ANNOUNCING LOWER Prices
Increased LINES 756 MODELS

● Because air conditioning coils must be "tailor-made" to fit the particular installation for which they are intended, Larkin's three conveniently located factories are *specially* equipped to fabricate air conditioning coils to specifications.

● To keep pace with the tremendous demand for greatly varying sizes and specifications, we have equipped these factories to enable us to ship on a day's notice, coils designed to any specifications within the limits of our special coil data.

● At each factory a staff of consulting engineers is ready to assist you with any special size or type coil required as well as to render any desired service in connection with the regular Larkin line of 756 models.

● All Larkin-built air conditioning coils embody the exclusive Larkin features of Continuous Fin, Staggered Tubing, "INRFIN" (Internal Fin) Construction, Silver Soldered Bond and Imbedded Fin-to-Tube Contact.

Our special coil data is now available. Address Larkin Factory nearest you.

ORIGINATORS and SOLE MANUFACTURERS OF LARKIN COILS.

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CHICAGO FACTORY 325 S. CALIFORNIA AVE.
GENERAL OFFICES & FACTORY ATLANTA
NEW YORK FACTORY 102 5TH. AVE.

Chicago Airtemp Man Wants Prices of Air-Conditioning Equipment Standardized

E. L. Weems of the Chicago Airtemp distributorship, formerly Chicago manager of apartment house sales for Frigidaire, had plenty to say about the problems of the air-conditioning industry when the editor of the News dropped in with his camera recently. (1) "I think your editorial on the need of established prices for air conditioning hit the mark squarely," as he lights a cigarette. (2) "I can see grave dangers ahead for the industry is price-cutting isn't controlled." (3) "What we need most is down on present evils." (4) "We ran into the same thing when a sort of Better Business Bureau, to work out a policy and crack I was managing apartment house sales for Frigidaire." (5) "In spite of cut-throat competition we made profits by keeping a close tab on overhead, commissions, and promotion costs—and I think something along the same general line would work for the air-conditioning business."

(1) "I'll send an engineer up this afternoon to help you figure on that residential job," Mr. Weems tells a salesman out in Winnetka. (2) "This year's outlook? Well, it's early to make predictions, but this letter from our man in Evanston is typical of how dealers are feeling. He says . . ." (3) From Mr. Weems' office, the editor went over to the Fairbanks-Morse plant. There he found Paul Jones, new F-M vice president, deep in plans to clinch a place among the leaders for Conservador and other F-M home appliances.

Georgia Power Co. Will Rent Refrigerators To Customers Using Less than 35 kwh

ATLANTA—Georgia Power Co. has inaugurated a refrigerator rental plan, designed to bring the convenience of electric refrigeration to the 45,000 customers on its lines who use less than 35 kwh. of electricity per month.

Under the plan, refrigerators will be "rented" to small users of electric power at a monthly payment scale which is lower during the cold-weather months than in the warm months. Payments are spread over a period of five years, at the end of which time the refrigerator becomes the property of the "renter."

Georgia Power is using the G-E Liftop model as its rental refrigerator. Rental rates on new refrigerators, during the first year, are set at $1.25 during the cold-weather months (January, February, March, October, November, December), and $2.25 during the hot-weather months. On used refrigerators, the rates are 75 cents in cold-weather months and $1.25 in warm-weather months.

During the next four years of the rental, rates on both new and used models are the same: 75 cents in cold weather months, and $1.25 in warm weather months.

The rental plan is designed to provide a higher rental during the summer and a lower rate during the winter, in order to discourage customers from renting refrigerators in the summer and returning them in the fall, when many of them feel they do not need refrigeration.

The customer may purchase the rental refrigerator at any time during the rental period at the price then in effect on a new appliance of the same kind, make, and model, less a credit of 50 per cent of the total rentals paid.

Ordinarily, however, it will not be to the customer's advantage to exercise this right, since the total rental price ($81) paid over the five years period is less than the present cash price ($84.50) of the G-E Liftop refrigerator.

This provision is made, company officials said, for those customers who, on account of leaving the territory served by Georgia Power, may desire to recover a portion of their investment in the rental refrigerator.

All rental refrigerators will be serviced, free of charge, during the rental period. This service agreement terminates when the refrigerator becomes the property of the customer. It is designed to protect the customer against all expense of repairs or replacements because of defects in workmanship or materials, but does not apply to any refrigerators which has been subjected to accident, abuse, or misuse. In this event, repairs will be charged to the customer.

Georgia Power Co. employees may rent refrigerators on the same plan.

"This rental plan on refrigerators is, to the best of our knowledge, something entirely new in the industry," Georgia Power Co. officials said in their announcement of the plan.

"It is designed to open up a large and entirely new market for electric refrigeration. Its prime purpose is to increase the load of this company—but while it is increasing our load, it will put economical refrigeration easily within the reach of 45,000 additional homes in our territory."

Sullivan Made Director Of Stewart-Warner

CHICAGO—T. T. Sullivan, secretary and treasurer of the Stewart-Warner Corp., has been elected a director to fill the vacancy created by the recent death of Robert J. Graham.

Combination Refrigerator & Range Displayed by Wholesaler

NEW YORK CITY—A combination refrigerator and cooking range, put on the market by Wholesale Radio Equipment Co., features a Stewart-Warner refrigerator in combination with a Royal range. The outfit retails for $129.50.

The combination refrigerator-range was introduced at the Modernization Exposition held last week in the Port Authority Building, under the sponsorship of the Federal Housing Administration. It is estimated that approximately 300,000 persons saw the combination during the show. A special sales campaign has been started, aimed at the summer home and bungalow owners.

WARNING

ELECTRIC REFRIGERATION NEWS continues to receive complaints from dealers who have paid money to subscription solicitors who claimed to represent this publication.

In some cases the solicitor has claimed to be a representative of a magazine subscription agency but in every case the agency has disclaimed responsibility for, or knowledge of, the solicitor. In a few instances dealers have made payment by check payable to ELECTRIC REFRIGERATION NEWS. The solicitor then forged an endorsement and cashed the check locally.

Please take notice that the NEWS employs no subscription solicitors and advises against the practice of placing orders through subscription agencies. Delays and errors will be avoided by mailing orders directly to ELECTRIC REFRIGERATION NEWS at 5229 Cass Ave., Detroit, Mich.

Frigidaire's Air-Conditioning Campaign Will Educate Public

(*Concluded from Page 1, Column 2*)

(4) central systems, for summer or year-'round use.

Frigidaire's line of compressors varies from ½ hp. to 10 hp., and is such that units may be installed in multiple to supply practically any air-conditioning requirement.

The wide range of compressor sizes, Frigidaire engineers say, permits installation either at one centralized point or at various points throughout any large building, and reduces the cost of running refrigerant lines over unnecessarily long distances wherever such practice would be a disadvantage. It also permits closer adjustment to varying outside weather conditions, they point out.

To carry on its program of education more effectively, Frigidaire's air conditioning division has been separated from the household and commercial refrigeration departments, and a new sales setup devised.

Staffs of trained engineers have been stationed in 125 major market cities throughout the country, and about them all air-conditioning field operations will revolve, explains J. J. Nance, manager of the air-conditioning department.

These engineers, trained in practical air conditioning in the field and at Frigidaire headquarters in Dayton, form the backbone of a specialized group of men who will sell air conditioning exclusively for dealers in various cities in their territories.

But, under Mr. Nance's direction, Frigidaire has gone even further in its drive to speed acceptance of air conditioning as a necessary part of American life.

Marketing plans have been analyzed to such an extent that different classes of outlets have been established, with certain dealers handling all installations for business or industrial purposes, and other dealers handling unit installations and devoting their efforts to the home and office market.

In other words, being a dealer for Frigidaire household or commercial refrigeration does not imply a dealership in Frigidaire air-conditioning equipment.

The business and industrial outlets, Mr. Nance believes, must maintain engineering staffs trained in all the ramifications of air conditioning, and the second class of dealer must have men fully qualified to make the type of installations which he will be promoting.

Otherwise, careless or faulty installations will be made, and air conditioning, instead of increasing in public acceptance, will receive a severe setback—one from which it may take years to recover.

In addition to maintaining a close check over its dealer organization, Frigidaire district managers in 48 headquarter cities will check all engineering recommendations, and major installations will be handled by a staff of headquarters' engineers, acting as consultants.

Effort will be concentrated in key markets of the nation, with Frigidaire's retail dealer organization forming the nucleus of its air-conditioning setup.

Education and promotion will be closely allied, according to Mr. Nance's plans. Frigidaire expects to be in a position to counsel with anyone about any phase of air conditioning, large or small.

Today's problem in air conditioning, Mr. Nance says, is not a question of stirring up interest, but rather of reducing the subject to a brasstack level of understanding and discussion. As it now stands, many understandings as to just what air conditioning can and should accomplish have arisen, both in the industry and with the public generally.

Frigidaire's promotion is of the educational type, which will inform a public that already is interested, through use of a type of sales procedure designed to sell it on what constitutes air conditioning, Mr. Nance said.

For this reason, the company is bringing out a sales program called "Steps to a Satisfied User," by which a definite procedure is laid down for the guidance of the field organization so that engineering, sales, and service will be coordinated with resulting satisfaction to the user, who will not be oversold nor undersold on what he is buying and what it will do.
period in which it may be given the proper engineering installation atten-

To develop the market during the tion, advertising and promotion will be concentrated in the period from now until the beginning of hot weather, with advertising in a number of national magazines, trade publications, and newspaper space placed on a cooperative basis by distributors and air-conditioning dealers.

This will permit the making of surveys and installations prior to the rush when home and office installations will be at their peak.

28 Refrigerators Sold in 20-Day Period

FRAMINGHAM, Mass.—George T. Stevens Sons, Frigidaire distributor here, reports that 28 out of 45 household units of the first carload ever ordered by the company, received March 11, were sold by April 1.

According to Sidney F. Greeley, manager, last month was the best March on record for the distributorship. Mr. Greeley believes that the showing this year is due to increased local advertising and more intensive follow-up on all prospects.

Specifications of 1935 Line of Hotpoint Electric Refrigerators

Hotpoint Refrigeration Division,
General Electric Co.,
Specialty Appliance Sales Dept.,
Cleveland, Ohio

Cabinet—Hotpoint all-steel cabinet with Textolite breaker strip and moulded rubber gasket. Thickness of Thermocraft insulation in models A-4, A-5, and AP-5—top 3 in.; sides 2½ in., back 2¼ in., door 3¼ in., bottom 2¾ in.; models A-7 and AP-7—top 3 in., sides 2¾ in., back 2⅝ in., door 3¼ in., bottom 2¾ in.; models AP-12 and AP-15—top 2¼ in., sides 2¾ in., back 3⅛ in., door 3¼ in., and bottom 3 in. Polished chrome hardware.

Compressor—Open-type 2-cylinder compressor belt driven at speed of 350-450 r.p.m. Bellows shaft seal. Bore 1½ in., stroke 1⅜ in. Compressor below food compartment.

Control—General Electric automatic temperature control with semi-automatic defrosting.

Motor—General Electric capacitor.

Evaporator—Hotpoint folded and welded stainless steel evaporator with Hotpoint highside float refrigerant control. Du-Flex aluminum and rubber ice cube trays.

Condenser—Hotpoint fan-cooled finned tube condenser.

Policy—One year guarantee on cabinet and system. Serviced by Hotpoint dealers and distributors only.

Special Features—Aphonic type fan, automatic belt tightener, ice trays in direct contact with refrigerated surfaces, automatic interior lights, foot pedal door opener, sliding shelves, vegetable and fruit drawers.

MODEL NO.	CU. FT.	INSTALLED PRICE	L.M.F. LBS.	MOTOR HP.	REFRIG-ERANT	SHIPPING WEIGHT	FINISH: G—GLYPTAL BAKED ENAMEL, P—PORCELAIN EXTERIOR—CABINET DIMENSIONS—INTERIOR	SHELVES SQ. FT.	NO. OF SHELVES	ICE TRAYS	NO. OF CUBES	WEIGHT IN LBS.
A-4	4.4	$134.50	108	1/6	SO_2	320	G 52¾ x 23 x 23 P 29 x 18 x 15¼	8.6	3½	2	40	4
A-5	5.2	164.00	108	1/6	SO_2	340	G 52¾ x 26¾ x 23 P 29 x 21¾ x 15¼	10.2	3½	2	40	6
A-7	7.0	229.00	108	1/6	SO_2	415	G 56¾ x 29½ x 25⅛ P 33 x 24 x 17	13.0	3	4	84	10¼
AP-5	5.2	174.00	108	1/6	SO_2	340	* 52¾ x 26¾ x 23 P 29 x 21¾ x 15¼	10.2	3½	2	40	6
AP-7	7.0	239.00	108	1/6	SO_2	415	* 56¾ x 29½ x 25⅛ P 33 x 24 x 17	13.0	3	4	84	10¼
AP-12	12.5	470.00	139	1/4	SO_2	...	P 62½ x 39 x 28 P 37 x 33 x 19½	22.7	4	6	128	14½
AP-15	15.4	520.00	139	1/4	SO_2	...	P 62½ x 46 x 28 P 37 x 40 x 19½	31.3	4½	6	128	16½

*Top, door, and base—porcelain; sides and back—Glyptal baked enamel.

Servel Corrects Specifications of Air-Conditioning Units

Functions—Self-contained type and remote floor type: cooling, dehumidifying, and cleaning. Suspended type: cooling and dehumidifying. Duct type: cooling, dehumidifying, heating, humidifying, and cleaning.

Blower—Direct driven by Wagner motor.

Compressor—Servel 2-cylinder compressor for self-contained type, with Wagner repulsion-induction motor, Allen Bradley starter, high side safety cut-out, and pressure control.

Air Circulation—Self-contained and remote floor type: air intake in top and rear, air discharge in top. Suspended type and duct type: air intake in rear.

Cabinet—Servel cabinet, with walnut finish for all but duct type, which has green finish.

Cooling System—Direct expansion cooling system, with Servel cooling coils.

Air Cleaning Medium—Filter.

Controls—All types: thermostatic expansion valve, thermostat, humidistat, liquid line solenoid valve.

Model No.	Price	Surfaces Sq. Ft. Cool	Heat	Refrigeration Capacity—Dehumidification	Sensible Heat	Total B.t.u./hr.	Net Weight	Bore & Stroke	Compressor Speed (R.p.m.)	Motor Hp.	Refrigerant	Motor Hp.	Speed R.p.m.	Blower Diameter In.	Total C.f.m.	Velocity F.p.m.	Heating Capacity B.t.u.	Humidification Lbs./hr.	Overall Dimensions
Self-Contained Type																			
ACFU-101 ...	$.....	164.94	...	.....	.....	10,080	....	.....	....	1	Freon or CH_3Cl	1/50	...	....	400	....	.....	...	31 x 67½ x 15¾
Floor Type																			
ACFD-101 ...	.....	164.94	...	.....	.....	12,240	....	.....	....	..	Freon or CH_3Cl	1/50	...	....	600	....	.....	...	31¼ x 43 x 13¼
Suspended Type																			
AC-101	.....	160.03	...	.....	.....	15,840	....	.....	....	..	Freon or CH_3Cl	1/15	...	....	1,000	....	.....	...	22½ x 22½ x 23½
Duct Type																			
ACO-301	.....	437.14	...	.....	.....	43,200	....	.....	....	..	Freon or CH_3Cl	½	...	....	2,700	....	.....	...	18 x 50½ x 35½

* * *

Servel, Inc.
Commercial Refrigeration Division
Evansville, Ind.

Editor:

To say that I was shocked when I read the specifications of Servel air conditioning units which appeared on page 10 of the March 27 issue of REFRIGERATION NEWS, is to express my feelings very mildly. These specifications are so full of errors that we fear the results. It is entirely our fault—not yours in any way.

A hurried investigation disclosed that one of our executives who sent you this information had entrusted gathering of the data to a subordinate who is unfamiliar with our air-conditioning products, and then, due to the pressure of other work, did not check this data before mailing it.

The surfaces are all wrong, the capacities are wrong, the refrigerant data is wrong! Worst of all, perhaps, the prices shown are not current prices. We prefer not to show any prices as the price structure of our air-conditioning unit line is now in process of revision.

I am enclosing a complete set of corrected data. Is it too much to ask that you print it in the next issue, with the explanation that, through no fault of the NEWS, there were errors in the Servel air conditioning data that appeared in the March 27 issue? Needless to say, I shall be everlastingly grateful to you.

HARRY NEWCOMB, Manager.

50-Ton System Cools Stockyards Cafe

CHICAGO—Fifty tons of refrigerating capacity is required for air conditioning the cafeteria and coffee shop operated in the Exchange building of the Union Stockyards and Transit Co. here.

The building is of reinforced concrete construction, with roof insulated with 1 in. of Celotex. The refrigerating machinery, coils, blower, etc. are located in a concrete lined room, sunk in the ground, adjacent to the building.

Its refrigerating load is carried by a Frick Freon compressor, 8¾x6, which operates at a suction temperature of 41° F. The machine is driven by a 50-hp. motor through a V-velt, and is connected to a multipass shell-and-tube condenser, 24 in. in diameter.

On the opposite side of the system are four 2-row serpentine coils, each 24 in. by 90 in. Adjacent to these are a 30 by 90 in. single-row heating coil, and a 30 by 90 in. double-row heating coil of the header type.

A New York blower fan delivers 16,000 cu. ft. of air per minute to the cafeteria room, against a static pressure of 1¼ in., when running 272 r.p.m.

Midwest Engineering & Equipment Co. supplied automatic control equipment.

The winter temperature control system, installed by the Barber-Colman Co., includes 2-in. positive and reversing valves, three thermostats and motor operated dampers.

Midwest Engineering Co. also furnished the sheet metal duct work, including dampers, splitters, diffusers, supply and return grilles, apparatus casings, eliminator plate, drip pan for coils, fresh air intake, fresh and return air hand-operated dampers, cork and wood foundations for fan and motor, canvas connections for fan.

The rooms, when occupied by 250 people, will stay at a temperature not to exceed 80° F. with 55 per cent relative humidity, when the outside conditions are 95° dry bulb and 75° wet bulb; this applies to the lounge and tap rooms as well as to the main restaurant space. At the same time the Freon system must supply 10 tons of refrigeration to the pair of existing air-conditioning units.

During the winter season, when the outside temperature is not lower than -15° F., the new ventilating system will warm the rooms to 70 or 72° F.

You can help to bring

SOLACE AND COMFORT TO A BEREAVED FAMILY

Many a Funeral Home has lightened the burden for sorrowing relatives by installing "FREON" air-conditioning

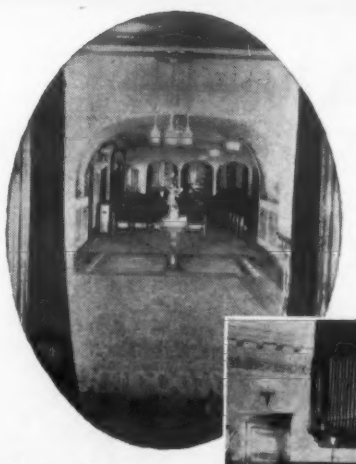
MOST of us know from personal experience how much it means to a family to be treated with consideration and thoughtfulness at a time of great sorrow.

Perhaps no one realizes this quite so well as a funeral director. He is constantly seeking ways to lighten the burden of bereaved relatives . . . to soothe their distraught nerves . . . to make the final sad hour of parting easier to bear. He knows that the atmosphere of a funeral parlor or chapel can be made oppressive because of a combination of humidity and the odor of flowers and preservative fluids. He also knows that the immediate family and other attendants at funeral services are apt to be dressed rather more warmly than usual.

Because he is very conscious of all this, the funeral director can easily be persuaded to install air-conditioning equipment. Like every other business man, he must be able to offer his clients and prospective patrons the most modern and pleasing service obtainable—or else lose business to his competitors.

Be sure to include funeral directors among your important prospects for air conditioning installations. Explain the advantages of "Freon," the safe refrigerant. Emphasize the fact that "Freon" is non-toxic, non-flammable and odorless when mixed with air up to 20% by volume.

These are the reasons why "Freon" is the refrigerant for air-conditioning in hotels, office buildings, apartments, restaurants—and for air-conditioning and refrigeration in meat markets, delicatessens, florists' shops, household refrigeration, museums, libraries and many other places.



The "Freon" air-conditioning system in the Wacker-Helderle Undertaking Parlor, pictured above, in St. Louis, Missouri, was installed by Frigidaire Corporation.

Illustrated above and at the right are typical Funeral Establishments which have been air-conditioned for the greater comfort and solace of sorrowing families and friends.

KINETIC

FREON

REG. U. S. PAT. OFF.

a safe refrigerant

KINETIC CHEMICALS, INC., TENTH & MARKET STREETS, WILMINGTON, DELAWARE

AIR CONDITIONING

33 Air-Conditioning Systems Installed in New Orleans during 1934

NEW ORLEANS—The 33 installations of air-conditioning equipment made in New Orleans during 1934 held up well with totals for previous years, according to survey figures compiled by New Orleans Public Service, Inc., local utility company.

The 1934 installations indicated a slight advance over 1933 figures, which listed 26 installations, as well as over the 25 installations made in all years before 1933.

Residential air conditioning registered a considerable advance, although the 11 installations reported last year were only one above the 10 listed during 1933. Before 1933, however, only three homes in the city had air-conditioning equipment.

Probably the most outstanding gain air conditioning made in the city was in the restaurant field. Five installations, totaling 170.25 hp., were made last year, where previous to that time no business of that sort had been reported as a user of air-conditioning equipment.

A system totaling 105 hp. was installed last year in a large airport in the city. Three hospitals also installed conditioners with a total of 11.5 hp., to mark the start of air-conditioning activities in this field.

Five retail stores were reported as installing systems totaling 78 hp., to go one above the total number of installations reported in previous years. In 1933, three systems totaling 48 hp. were installed, while before that time but one 38 hp. installation was reported.

Other installations reported during 1934 included four private offices, a general office, a small job in a hotel, a department store, and a portion of the utility company's offices.

The 1934 list does not include a 100 ton addition of steam jet air conditioning, which was made to the existing steam jet installation in the Roosevelt hotel, one of the city's largest inns. Also not included in the 1934 tabulations is the Whitney bank building installation, contracted for last year, but to be completed during 1935.

The latter job, according to L. J. Cucullu of the industrial and commercial sales department of New Orleans Public Service, Inc., will be outstanding locally in size, and will be the second complete office building air-conditioning job in New Orleans. When completed, the Whitney building installation will total approximately 1,300 hp. The system was sold by Carrier Engineering Corp.

Sales efforts in the air-conditioning field last year included, in addition to the regular promotional work, a sound movie, featuring local installations and testimonials of key men in the organizations which had made them. Most of the air-conditioning business this year is expected to consist of medium sized and small installations, since conditioners have already been installed in most of the city's larger establishments.

The tendency in New Orleans toward systems of small average hp. is clearly indicated in the following table:

	No. of Installations	Total Connected Hp.	Average Hp. per Installation
During 1934	33	505.75	15.32
During 1933	26	1,495	57.5
Before 1933	25	2,770.9	106.5

Baudelot Cooler Used in Auditorium Job

LOS ANGELES — An Auditorium air-conditioning system, utilizing a Baudelot cooler, was installed recently in the restaurant and cocktail room of the Midtown Catering Co. here.

New Orleans Air-Conditioning Installations

Type of Establishment	Prior to 1933 No.	Prior to 1933 Hp.	During 1933 No.	During 1933 Hp.	During 1934 No.	During 1934 Hp.	Total Thru 1934 No.	Total Thru 1934 Hp.
Offices (Private)	6	10.5	..	..	4	5	10	15.5
Offices (General)	1	5	3	41.5	1	48	5	94.5
Office Buildings	..	..	..	..	..	..	..	..
Restaurants	..	..	..	..	5	170.25	5	170.25
Hotels	..	..	1	103	1	4	2	107.0
Residences	3	4.5	10	23.5	11	31.5	24	59.5
Department Stores	3	1,143.0	1	720.0	1	48	5	1,911.0
Hospitals	..	..	..	..	3	11.5	3	11.5
Radio Studios	1	19	1	5.5	..	..	2	24.5
Clothing Stores	..	..	1	22.5	..	..	1	22.5
Theaters	4	1,442	..	..	..	..	4	1,442.0
Banks	..	..	1	516	..	..	1	516.0
Laboratories	1	43	..	..	..	..	1	43.0
Candy Manufacturers	2	50*	..	..	..	..	2	50.0
Cake Manufacturers	1	12	..	..	..	..	1	12.0
Brokers Room	..	..	1	10.5	..	..	1	10.5
Air Ports	..	..	..	..	1	105	1	105.0
Sugar Storage	..	..	1	1	..	..	1	1.0
Cigar Manufacturers	..	..	2	2	..	..	2	2.0
Pecan Dryers	1	1.5	..	..	..	..	1	1.5
Printing	1	2.4	1	1.5	..	..	2	3.9
Utility	..	...	..	..	1	4.5	1	4.5
Retail Stores	1	38	3	48	5	78	9	164.0
Total	**25**	**2,770.9**	**26**	**1,495.0**	**33**	**505.75**	**84**	**4,771.65**

*Estimated.

KRAMER ICE CUBE MAKERS

Restaurants—hotels—all refreshment centers are ice cube minded. Make this unit an "extra" in figuring jobs for refreshment centers—or make it an individual sale where commercial systems are now operating. The reception you'll get in talking "ice cubes" will surprise you.

Built right—in capacities ranging from 240 to 448 cubes per freeze—4 to 8 freezes daily.

KRAMER Low Side Applications include COMMERCIAL COILS in all sizes & capacities, UNIT COOLERS, DOMESTIC EVAPORATORS, AIR AND WATER COOLED CONDENSERS, BOTTLE COOLING COILS and "Specials."

Write for Further Information and Prices

TRENTON AUTO RADIATOR WORKS

Main Offices and Factory, TRENTON, NEW JERSEY

NEW YORK, 210-212 West 65th Street PITTSBURGH, 5114 Liberty Avenue

Mass Production of Large Condensing Units

Twin production lines are now being operated by Frigidaire Corp. in the manufacture of 10-ton air-conditioning compressors. A group of Frigidaire executives are shown inspecting a compressor made on the production line. They are, left to right: E. R. Godfrey, works manager; J. J. Nance, manager of air-conditioning division; H. W. Newell, vice president in charge of sales: and George R. Auld.

Air Curtain Keeps Food Odors Out of Conditioned Diner

PHILADELPHIA—One of the features of the General Electric air-conditioning equipment installed in the Burlington Zephyr, one of the twin streamlined trains just completed at the Budd plant here, is an air curtain which occupies the opening between the kitchen and eating space, offering unobstructed vision and free passage at all times, but keeping cooking odors and heat away from the passengers who are being served.

This air curtain is formed by a sheet of air being forced through a small slit in both sides of the door frame, directed toward the center and deflected toward the kitchen.

Through an exhaust ventilator located over the door opening, fumes checked by the air curtain are blown outside the car.

All five passenger compartments of the new three-car train are air conditioned. Condensing units are housed beneath the floors of the cars, while the evaporators and distributing fans are built into the roof.

Two combination heating and cooling coils are located in the evaporator. Between these are two double blowers that project conditioned air through centrally located grilles into opposite passenger compartments.

Capacity of the refrigerating system is 5½ tons per car, which is ample because of double glazed windows and heat-reflecting properties of the stainless steel exterior of the train.

Heating & Ventilating Show to Be in Chicago

CHICAGO—The Fourth International Heating and Ventilating Exposition will be held in the new International Ampitheater here Jan. 27 to 31, 1936.

Since its inception at Philadelphia in 1930, the exposition has been held every two years. Cleveland was the site of the 1932 meeting, and New York City of the one held in 1934.

The advisory committee of the exposition is composed of John Howatt, chairman; F. H. Gaylor, A. B. Martin, J. M. Frank, E. M. Mittendorff, J. R. Vernon, and R. E. Hattis. Conduct of the meeting and all details of exhibit arrangement and leasing are in charge of the International Exposition Co. of Grand Central Palace, New York City, and will be under the direction of Charles F. Roth, who had charge of the earlier expositions.

Organizations which have been invited to participate in the 1936 exposition include: Industrial Unit Heater Association, Unit Air Conditioners Association, American Society of Refrigerating Engineers, and Register and Grille Manufacturers.

Century Adds 2 Boiler-Burner Units to Line

CEDAR RAPIDS, Iowa—Two new sizes have been added to the line of boiler-burner units manufactured by the Century Engineering Corp. here, reports E. J. Lattner, president.

The new units are built for 700 and 1,200 feet of steam radiation.

Western Railroads to Feature Conditioning In Advertising

PHILADELPHIA — Featuring air-conditioned equipment, a $450,000 co-operative advertising campaign was launched April 1 by Western railroads. Newspapers, four national weekly magazines, and spot radio announcements are the media.

Executives of railroads, it is said, are now planning to air condition entire trains, instead of confining it to lounge and dining cars as heretofore. Other points to be stressed in the campaign are improved equipment, faster schedules, dependability, and safety.

Every newspaper in every city of 20,000 and over in the West and Middle West will be used in the campaign. Every daily in the same city will carry the same lineage, though there will be variations in the amount of space used in cities of different sizes. The campaign will break April 15 and run to about June 15.

Collier's, *The Literary Digest*, *Saturday Evening Post*, and *Time* will be used. Seventy-five radio stations will carry spot announcements.

Reincke-Ellis-Younggreen & Finn, Chicago Advertising agency, is handling the campaign.

Carraway Sells Two Air Coolers in Dallas

DALLAS — Carraway Engineering Co., Inc. of this city recently sold two year-'round air-conditioning systems—one for a residence, the other for an office.

The system for the residence of David M. Lide has a cooling capacity of 120,000 B.t.u.'s per hour and a heating capacity of 175,000 B.t.u.'s per hour.

The installation in the H. H. Bain Roofing Co., Inc., Shreveport, La., has a cooling capacity of 36,000 B.t.u.'s per hour and a heating capacity of 90,000 B.t.u.'s per hour.

Both systems are automatic and will have the Carraway control system to increase the rated capacity on either the cooling or heating cycle.

Utility Conference Hears Talk by Carrier

OKLAHOMA CITY — Willis H. Carrier, chairman of the board of directors of Carrier Engineering Corp., Newark, N. J., and famed for his pioneering work in the field of air conditioning, was a featured speaker at the three-day annual commercial department conference of the Oklahoma Gas & Electric Co. here last month.

Mr. Carrier also spoke to an audience of 500 people at a chamber of commerce dinner, his subject being "Manufactured Weather." His address was broadcast over radio station WKY, Oklahoma City.

J. M. Bickel, Carrier Corp. sales manager, also addressed the conference on "Selling Air Conditioning."

O. A. Jennings, vice president and manager of the commercial department, was in charge of the conference. Earle W. Gray, manager of air-conditioning sales, outlined the company's merchandising and sales promotional plans for 1935.

Frigidaire Conditioner Sales Up in February

DAYTON—Sales by the air-conditioning division of Frigidaire Corp. were 302 per cent higher for February of this year than February a year ago, J. J. Nance, manager of the division, reported last week.

This increase maintains the trend that has been evident since Dec. 1, sales volume in December and January having been 300 per cent over the same 60-day period a year ago.

Mr. Nance stated that owners of retail stores, business men with large offices, professional men, and others who look upon air conditioning of their quarters as a means of increasing their sales volume, are installing equipment during the winter months in order to escape the rush that will come with the first hot weather.

Frick Cools Funeral Chapel in Chicago

CHICAGO—The chapel of the Piser Undertaking Co., located on Broadway here, was recently equipped with air conditioning by the Midwest Engineering & Equipment Co., Frick distributor.

Two low pressure units, charged with Freon—one 10 hp. and one 5 hp.—carry the refrigerating load and produce 15 tons of refrigeration when operating with a suction temperature of 40° F., with condensing water at 75° F.

The 10-hp. machine is manually controlled; a thermostat, with the bulb installed in the return air connections, operates the 5-hp. unit, which cuts in and out automatically.

Two sections of Trane fin type cooling coils, each with two sections of tubes, do the comfort cooling. The net area of the coils, which are arranged one section high and two deep, is 30 in. by 60 in.

Wool felt ¾ in. thick, applied in two layers, is used for insulating the suction lines.

Two solenoid valves for the liquid lines and the necessary thermal valve for feeding the cooling coils, complete the equipment.

Hayward Heads Pocock's Air Cooling Sales

PHILADELPHIA—D. T. Hayward, formerly Frigidaire factory representative, was recently appointed sales manager of air conditioning and commercial refrigeration for J. J. Pocock, Inc., Philadelphia distributor for Frigidaire refrigeration and air conditioning, reports J. J. Pocock, president of the company.

Mr. Hayward entered the refrigeration business in 1926 as a salesman for the Memphis, Tenn. Frigidaire distributor. He was later promoted to sales supervisor. For some time he specialized in the specification and sale of Frigidaire's commercial line of refrigeration equipment for retail stores, markets, restaurants, and other commercial enterprises.

Stewart-Warner Branch To Sell Airtemps

KANSAS CITY — Stewart-Warner Alemite Co. is now handling air-conditioning equipment made by Airtemp, Inc., a subsidiary of Chrysler Motors.

SERVICE

Fundamentals of Refrigeration

By K. M. Newcum

Editor's Note: The following is the first of a series of articles written by K. M. Newcum for the special benefit of refrigeration and air-conditioning installation and service men. This article deals with the fundamental principles which must be understood by the beginner before going into the design and operation of equipment.

Many young men who have a natural liking for mechanical work are becoming interested in the opportunities now offered by the rapidly growing refrigeration business and the big future which seems to be opening up in the field of air conditioning.

Often such young men are inclined to believe that "theory" and technical knowledge are not important. But every experienced instructor who has tried to teach installation and service methods finds it necessary to begin with an explanation of these fundamental principles.

Mr. Newcum has taught many groups of beginners in refrigeration service and has tried to find the simplest possible way to present the essential facts on which are based the operation of refrigerating machines. A great many pages would be required to discuss the following subjects and terms completely.

Read these short paragraphs carefully and try to get the meaning of each term clearly in mind. All of these words will be used frequently in succeeding articles and you will not understand later explanations of refrigeration operations unless you know just what is meant by each of these terms.

1. The Term Refrigeration

REFRIGERATION in the true sense of the word may be defined as the process of removing heat from a given space, thus reducing the temperature of the space below that of the surrounding environment.

Mechanical refrigeration is defined as being the mechanical system or apparatus so designed and constructed that, through its function, heat is absorbed or extracted mechanically.

Refrigeration by means of melting ice is a simple and much used method. A cake of ice placed within a given space will, during the process of melting, remove heat from the space, hence produce refrigeration. The cake of ice does not give off, or radiate, cold as it is often thought. The reduction of temperature is effected by the physical change that is taking place while the ice is melting.

2. Definition of Cold

COLD is a word used to define the absence of heat. Cold has the same relation to heat that darkness has to light. When a certain quantity of heat has been removed from a space or substance, and the temperature has been lowered below that of the surrounding space of substances, we speak of it as being cool or cold.

Warm or hot, and cool or cold are terms defining the relative degree of heat contained in the space or substance.

3. Heat

HEAT is real. Heat is a form of energy, much the same as mechanical or electrical energy. Heat may be produced by oxidation, and is supplied by the rays of the sun.

4. Kinetic Theory of Heat

The generally accepted theory of heat is the Kinetic theory. It assumes that the molecules are in constant motion, and are mutually attracted and held together by a force like magnetism. The force of this attraction is effective for only short distances. The greater and more energetic the molecular motion of the substance, the more heat it contains. As the heat is increased so is the molecular motion and vice versa.

5. Absolute Zero

Scientists have determined that when the temperature of a substance has been reduced to 460 degrees below zero F. (−460° F.), all of the heat has been removed from the substance. At this point the molecules cease to have motion. This temperature is known as absolute zero, and is the lowest temperature obtainable. *Heat is present in all substances if the temperature is above absolute zero.*

6. The Flow of Heat

Heat always travels from the warmer to the colder object or substance. It is one of the fundamental laws that all of nature's forces tend to equalize.

Heat permeates everything. There is no known substance or material that will totally exclude or stop the flow of heat. There are materials known as insulating materials that will retard or throttle the flow of heat. These materials are used in the walls of refrigerators.

7. Methods of Heat Transfer

CONDUCTION is the transfer of heat through or by means of a solid substance known as a conductor. Some materials are better conductors than others. Metals such as iron, copper, etc., are good conductors, while copper is a better conductor than iron. Materials known to be retarders or poor conductors of heat are called insulators. Cork is a good insulator of heat and is commonly used in the walls of the refrigerator.

CONVECTION is the transmission of heat through, or by means of some third agent, either a liquid or vapor which conveys the heat from the hotter to the colder substance between which heat transfer takes place. Air currents are the commonest of agents conveying heat by convection. The cooling of food stuffs in a refrigerator is accomplished by convection, with the air confined in the cabinet being the conveyer.

RADIATION is the transmission of heat through intervening substances without heating these substances. The heat supplied by the sun rays is by radiation. The heat transmitted by the sun rays does not heat the air through which it is traveling, but does heat the object or substance by which it is absorbed.

8. Unit of Intensity of Heat

The unit of intensity of heat, expressed as temperature, is measured by the thermometer. The generally accepted measurement of temperature is the degree Fahrenheit, abbreviated ° F. The Fahrenheit thermometer is the standard used in English speaking countries.

The thermometer measures only the *sensible* temperature of different bodies. The thermometer can make only comparison between the temperature of a body and some definitely known temperature such as the melting point of ice, the boiling point of water.

It was on this basis that the thermometer was founded and put into use. The thermometer then only indicates in degrees the temperature of an object as compared with some known temperature.

Thus the thermometer registers in degrees the *intensity* of heat. The quantity of heat will be dealt with separately. At normal atmospheric pressure (sea level), the melting point of ice is 32° above zero (+32° F.), and the boiling point of pure water is 212° above zero (+212° F.).

9. Unit of Quantity of Heat

The unit of quantity of heat is an expression by which we mean a certain definite amount of heat that is contained in a body or substance. The measurement of quantity of heat is the heat unit known as the British thermal unit, abbreviated and commonly known as B.t.u.

One B.t.u. is the amount (quantity) of heat necessary to raise the temperature (intensity of heat) of one pound of pure water one degree F. More clearly defined, one B.t.u. will have been absorbed by one pound of water in raising its temperature one degree F. and vice versa, one B.t.u. will have been given off by one pound of water if its temperature is lowered one degree F.

10. Sensible Heat

Sensible heat is the heat in a substance which is evident to the senses and is thus termed sensible. Sensible heat may be noticed or felt. As an example: a small vessel of water may be placed over a gas flame. As the heat is absorbed by the water, the rise in temperature may be felt with the finger and noted by a rise in degrees on the thermometer.

Thus when the temperature of a substance rises, sensible heat is being absorbed, and vice versa.

11. Specific Heat

Specific heat is the relative capacity of a substance for absorbing heat. As a standard basis from which to work, pure water has been given a specific heat of 1.00. By comparison the specific heat of cast iron is .1298.

This would indicate that it requires but 13/100 of the quantity of heat to change the temperature of a given weight of cast iron, through a given range in temperature, as would be required to change an equal weight of water through the same range in temperature.

To determine the amount of heat necessary to effect a certain change in temperature of a substance, multiply the weight of the substance by the specific heat and by the temperature change.

The specific heat of a substance remains constant so long as the substance remains in its original state. The specific heat changes with its physical state.

Specific Heat of Common Substances

Water	1.00
Ice	.502
Copper cast	.0933
Brass	.090
Alcohol (Methyl)	.600
Gasoline	.525
Iron cast	.1298

12. Latent Heat

Latent heat is the amount or quantity of heat necessary to change the

(*Concluded on page 26, Column 1*)

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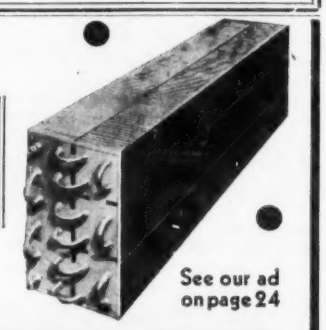

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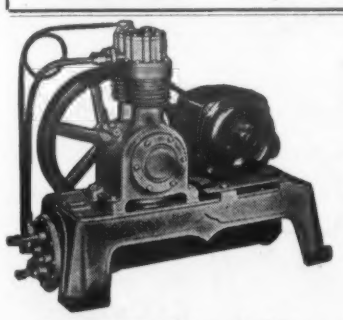

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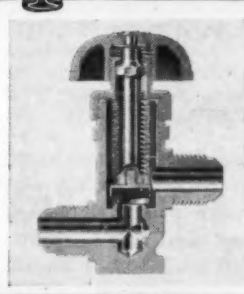

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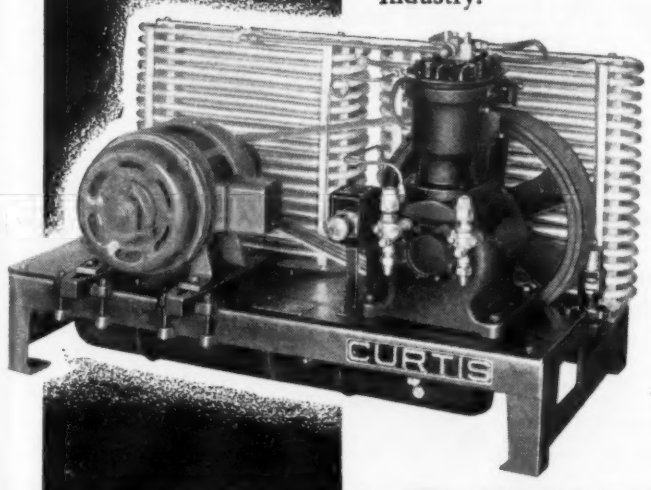

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SERVICE

Basic Theories of Refrigeration

(*Continued from Page 25, Column 3.*)
physical state of a substance, either from a solid to a liquid, or from a liquid to a vapor, without changing its temperature.

There is heat in ice, for all substances above absolute zero contain heat. Ice is cold then only by comparison. The melting point of ice is fixed at 32° F. At all temperatures below 32° F. ice remains in its solid state.

It is a fundamental law of nature that when a substance changes its state, either from a solid to a liquid or from a liquid to a vapor or gaseous state, the process even though accompanied by no measureable change in temperature results in the absorption of a certain definite amount of heat. This heat is latent or hidden, and is thus called latent heat.

LATENT HEAT OF FUSION is the quantity of heat necessary to change the physical state of a solid to that of a liquid without changing its temperature.

It has been determined that the latent heat of fusion of one pound of ice is 144 B.t.u.'s. More clearly explained: when one pound of 32° ice has melted into one pound of 32° water, 144 B.t.u. has been absorbed. Hence one pound of 32° ice plus 144 B.t.u.'s equals one pound of 32° water, and vice versa.

EXAMPLE: One pound of 10 degree ice plus 11 B.t.u.'s (specific heat of ice .502 x one pound x 22° F.) equals one pound of 32° ice. One pound of 32° ice plus 144 B.t.u.'s (latent heat of fusion) equals one pound of 32° water. From this we find that 151 B.t.u.'s will have been absorbed in raising the temperature of one pound of 10° ice to one pound of 32° water.

LATENT HEAT OF EVAPORATION is the quantity of heat necessary to change the physical state of a liquid to that of a vapor, without raising the temperature of the liquid.

The latent heat of evaporation of one pound of pure water is 970 B.t.u.'s. From this we can see that a large quantity of heat is absorbed in changing a liquid to a vapor, while in the case of water one B.t.u. will raise its temperature one degree F.

EXAMPLE: One pound of 32° water plus 180 B.t.u.'s equals one pound of 212° water. One pound of 212° water plus 970 B.t.u.'s equals one pound of 212° steam. This large quantity of latent heat of evaporation plays a most important part in mechanical refrigeration.

13. Condensation

Condensation is the process of changing the state of a vapor or gas back to that of a liquid state. The same exchange of heat takes place in condensation as in vaporizing, except the condition is reversed. When a vapor or gas gives up the latent heat, and returns to a liquid, the process of condensation has taken place.

14. Molecular Theory

The generally accepted theory of Matter is that all of the chemical elements of which matter is composed are made up of infinitely small particles known as atoms. When the chemical elements combine to form compounds, as is the case when oxygen and hydrogen combine to form water (H_2O), the atoms of each element combine with the other and form small bodies called molecules.

15. Matter

Matter exists in three states—Solid, Liquid, and Gaseous—depending on the amount of heat contained, or what is the same thing, the amount of energy of motion of its molecules. These phases differ in the average distance through which the molecules move without colliding with one another. In a gas, the distance is greatest; in a liquid, it is comparatively less; and in a solid, the molecules are close. In some solids they are in actual contact with each other.

This average distance or mean free path, as it is called, is directly proportional to the amount of heat a substance contains. It is common knowledge that heating will melt a solid and finally, if sufficient heat is applied, will cause it to boil, forming vapor or gas.

16. Boiling Water

From the foregoing it can readily be seen that when a liquid boils it absorbs heat. This is the principle upon which mechanical refrigeration is based.

Water is the commonest of all liquids, and when it is heated to its boiling point, and allowed to change its state to steam, a large quantity of heat is absorbed in the process.

For example, suppose one pound of water at 70° F. is heated in an open vessel up to its boiling point 212° F. The rise in temperature would be the difference between 70° and 212° or 142°. Knowing that one B.t.u. is required for each degree rise in temperature, we know that 142 B.t.u.'s have been absorbed by the water.

If we go a step further, continuing to supply heat to this same one pound of water until it has all changed into steam, 970 B.t.u.'s will have been absorbed without increasing the temperature.

Since there is so much heat required to change a pound of water at the boiling point to steam at the same temperature, it is natural to wonder where all this heat goes and why such a large amount.

The answer is that 970 B.t.u.'s of heat have gone into the one pound of 212° steam. The amount is large because the molecules of the water must be set free from each other.

This heat gives the molecules energy enough to help them move beyond the attractive range of the other molecules, and finally to separate themselves from the liquid, entirely forming steam. All of this heat which did not cause a rise in temperature lies hidden or latent in the vapor.

17. Condensation of Steam

Let us assume that a cold glass was placed in the path of the steam. As the steam contacts the cold surfaces of the glass, drops of water are formed. The molecules that were forced apart previously, when steam was formed, have exactly reversed that action and are being reattracted to each other, to again form water. The latent heat is given up to the cold surfaces of the glass.

18. Heating Cycle

The complete cycle of heating is given since it is similar in principle to the cycle of refrigeration. Water placed in a steam boiler absorbs heat from the burning fire. This heat is stored in the steam.

Heat-laden steam is carried to the radiators through the pipes. The steam comes into contact with the cooler walls of the radiator, and gives up its latent heat to the radiator, thence to the room, and returns to water, which flows back to the boiler.

This cycle is repeated throughout the heating period, and is continuous so long as heat is being supplied to the water by fire.

19. The Refrigeration Cycle

The refrigeration cycle is similar to the heating cycle except that water, due to its high boiling point, is unsatisfactory in the refrigeration system as a heat-carrying agent. A chemical known as the *refrigerant* is used.

A refrigerant has a boiling point sufficiently low that the heat from the foods within the refrigerator will cause it to boil. Heat thus absorbed from within the refrigerator by the boiling of the liquid refrigerant, is carried out of the refrigerator latent in the gasses formed, through tubes or pipes. The vapor is carried to the compressor and condenser where it gives up its heat and returns to a liquid.

The steam in the radiator gave up its heat to the room and was condensed to water, for the room temperature was lower than the temperature of the steam. The refrigerant boils at temperatures lower than refrigerator temperatures (40 to 50°) and the pressure must be exerted upon the refrigerant vapor to cause it to condense back into a liquid.

There are several liquids now in common use possessing the necessary properties for refrigerating purposes. The refrigerants boil at different temperatures:

Refrigerant	Boiling Point
Sulphur Dioxide (SO_2)	14° F.
Methyl Chloride (CH_3Cl)	– 11° F.
Freon (F-12) (CCl_2F_2)	– 21° F.
Ammonia (NH_3)	– 27° F.
Ethyl Chloride (C_2H_5Cl)	54° F.
Isobutane (CH_3) 3CH	10° F.
Carbon Dioxide (CO_2)	–110° F.

These liquids are highly volatile, and when released into the atmosphere, pass immediately into a vapor. They remain in a liquid state while held in a closed container.

The heat extracted from the surrounding atmosphere is sufficient only to cause the liquid to boil until sufficient pressure is created within the container, and upon the remaining liquid to prevent further boiling. This illustrates the point that while volatile liquids boil at low temperatures, *they will not boil under high pressure.*

If we were to place a small glass tube containing liquid SO_2 in a vessel of water, leaving the mouth of the tube open to the atmosphere, the SO_2 would boil violently. A thin layer of ice will form on the glass tube, where it has contacted the water.

This throws light on the first principle of refrigeration; that is, when a volatile liquid boils it absorbs heat. The liquid SO_2 having a boiling point of 14° F. absorbed heat from the surrounding water, reducing the temperature of the water below it's freezing point and ice was formed.

Simple Refrigeration System

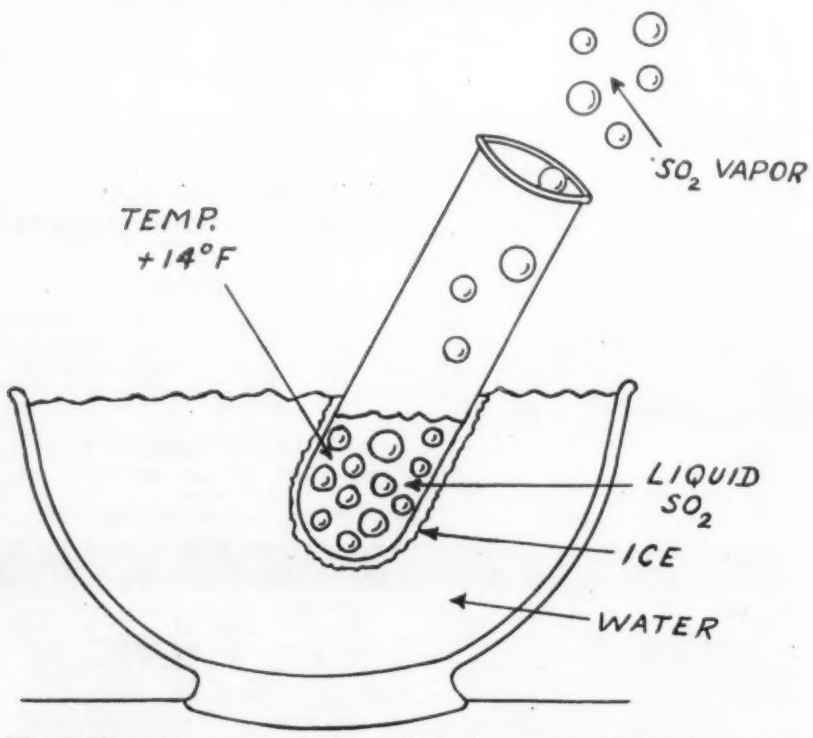

Fig. 1 illustrates a very crude refrigeration system. It is also a very expensive method for the refrigerant vapor has passed off into the air and cannot be recovered. In order to find some more practical means of employing this principle of refrigeration we must find some means whereby the vapors can be recaptured, and converted back into a liquid to be used over and over again. This has been accomplished in the present day mechanical refrigeration system.

Dairy Industries Show Postponed Until 1936

NEW YORK CITY—The Dairy & Ice Cream Machinery & Supplies Association announced from its headquarters here last week that its next Dairy Industries Exposition would not be held until 1936. The announcement was made, officials said, to clear up confusion between the exposition and the National Dairy Show.

"The Dairy Show," reads the association's statement, "is being revived in October, 1935, by the National Dairy Association after a lapse of a number of years. It is a dairy cattle show, devoted to milk as a farm product, and to fine dairy breeds and their care. It is to be held in St. Louis.

"The Dairy Industries Exposition ... represents the industrial activities that are based upon milk. It presents machinery equipment, supplies, materials, ingredients, services, etc., to the fluid milk, butter, ice cream, cheese, condensery, etc., industries, and does not cater to the farm producer or handler of milk.

"As was announced a number of months ago, this association has voted to hold the next Dairy Industries Exposition in October of 1936; and there will be no exposition in 1935."

The International Association of Ice Cream Manufacturers and International Association of Milk Dealers, which hold their annual meetings concurrently with the Dairy Industries Exposition in years in which it occurs, are holding conventions this year in St. Louis.

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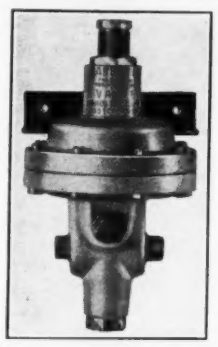

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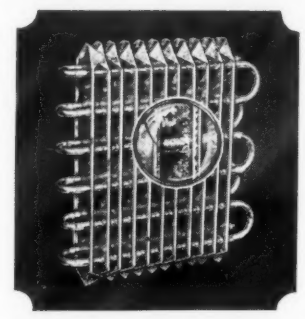

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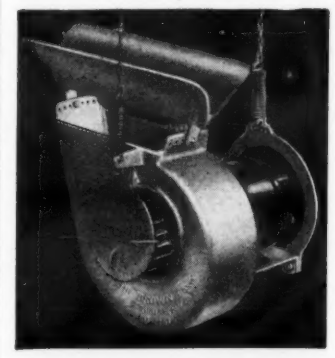

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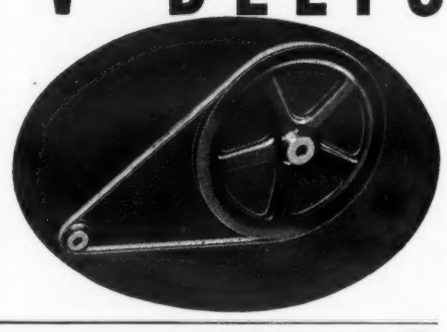

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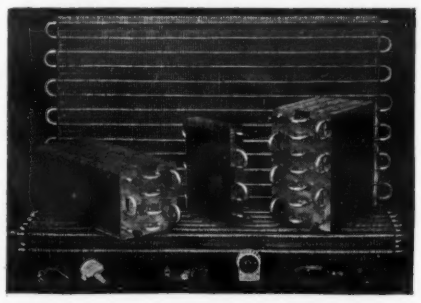

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Orphan Refrigerators

No. 2166 (Service man, Minnesota)—"What have you to offer in service information of orphan refrigerators in connection with your publication, ELECTRIC REFRIGERATION NEWS. Or do you have these service notes bound in separate volume?

Answer: Complete service instructions on 12 of the best-known orphan refrigerators have been published in issues of ELECTRIC REFRIGERATION NEWS during 1935. A package made up of the 23 issues of the NEWS in which this material was published will be mailed postpaid on the receipt of $2.

Ice Cream Freezers

No. 2167 (Reader, Pennsylvania)—"Will you advise me the name of a company that makes an electric motor driven ice cream freezer that will fit in the coil of a Frigidaire Super 935 Model."

Answer: The following companies make electric motor-driven ice cream freezers for use in the evaporator of an electric refrigerator:

Easy-Way Co.
432 Marquette Rd., Chicago, Ill.
Hamilton Beach Co., Racine, Wis.
S. M. Howes Co.
511 Medford St., Boston, Mass.
Louisville Electric Mfg. Co.
3100 Magazine St., Louisville, Ky.

We suggest that you communicate directly with the above manufacturers for information concerning their products.

9/10-Cu. Ft. Electrolux

No. 2168 (Manufacturing Co., West Virginia)—"Please advise if the 9/10-cu. ft. Electrolux cabinet mentioned in the March 29 issue of ELECTRIC REFRIGERATION NEWS is available in America?"

Answer: No. It is made in Europe and not sold in this country, so far as we know.

Refrigerators Sold

No. 2169 (Manufacturer, Missouri)—"In connection with a survey which we are making, we should like to obtain the following information about the refrigeration industry.

"We should like to know the number of domestic refrigerating units manufactured in each of the years from 1928 to 1934 inclusive, and an estimate of the probable number that will be manufactured in 1935."

Answer: The number of electric refrigerators sold in each year from 1920 through 1934 was published in the Feb. 20 issue of ELECTRIC REFRIGERATION NEWS. You will note that these figures represent shipments by manufacturers to distributors and dealers throughout the world.

During the first two months of 1935, manufacturers sold approximately 225,000 refrigerators to distributors and dealers, setting new records for both months. If shipments continue to show the same increase in the remaining months of the year, it seems logical to assume that the 2,000,000 mark will be reached.

Bellows Shaft Seals

No. 2170 (Manufacturer, Ontario)—"We are interested in securing information on the construction and servicing of the bellows type shaft seal as applied to refrigeration compressors.

"If you have anything covering this subject, kindly quote us prices on the same."

Answer: An article, "How to Service Compressor Shaft Seals," was published on page 6 of the Jan. 2 issue of ELECTRIC REFRIGERATION NEWS. Back issues of the NEWS are available at a cost of 10 cents each (15 cents each for Canada).

Commercial Code

No. 2171 (Manufacturer, Indiana)—"We will appreciate it very much if you will kindly send us copy of the code under which manufacturers of commercial refrigeration units operate."

Answer: The NRA last fall ruled that the Refrigerating Machinery Industry code would govern the manufacture and sale of commercial refrigeration machines in sizes of 1 hp. and larger, and that the supplemental code for the Refrigeration Division of the National Electrical Manufacturers Association would govern the manufacture and sale of machines less than 1 hp. The story covering the agreement was published on pages 1 and 2 of the Nov. 28, 1934, issue of ELECTRIC REFRIGERATION NEWS.

The Refrigerating Machinery Industry code was published on pages 16 and 17 of the Oct. 10 issue, and the Refrigeration Division of Nema code was published on page 10 of the June 13, 1934, issue.

Service Licenses

No. 2172 (Service Company, Texas)—Refrigeration companies in El Paso are considering petitioning the city council for an ordinance regulating and licensing refrigeration service men. Have you in your files copies of such ordinances in other cities which have been declared legal by high courts? And could you furnish us the names of a few cities having such ordinances and to whom we might write for copies?"

Answer: The only major city, to our knowledge, which has put such an ordinance into effect is Los Angeles, and I believe that you may obtain this ordinance by writing city officials.

The Master Refrigeration Association, 112 East 19th St., New York City, has drawn up a proposed ordinance of this type, and you may obtain details about it by addressing Mr. E. S. Lape, secretary.

G-E Model HE-7

No. 2173 (Furniture Dealer, Ohio)—"Will you please advise what year model HE-7 General Electric refrigerator is. Please specify the year."

Answer: We believe that the model HE-7 General Electric refrigerator was first brought out in 1933. It does not appear in the specifications data which we have compiled previous to that year.

Air Conditioning Lessons

No. 2174 (Service Company, New York)—"With reference to the series of lessons on air conditioning mentioned in your article on page 9 of ELECTRIC REFRIGERATION NEWS dated March 27, will you kindly quote us prices on all the available parts of the complete series."

Answer: Complete information on this series of air-conditioning lessons may be obtained by addressing the Heating, Piping & Air Conditioning Contractors National Association, Suite 1401 Rockefeller Center, 1250 Sixth Ave., New York City.

Production Figures

No. 2175—"We are interested to secure statistics on the number of refrigerators produced by months and also the sales of these.

"We have been referred to you by the Refrigerator Association of New York, Inc., 60 East 42nd St.

"If you have such information and send it out regularly, we shall greatly appreciate it if you will add our name to your mailing list to receive such releases."

Answer: Sales of household electric refrigerators are published regularly in ELECTRIC REFRIGERATION NEWS. Complete monthly reports of refrigeration sales are compiled by the Refrigeration Division of the National Electrical Manufacturers Association (Nema), and are published as soon as received, we also publish our own estimates of sales by the industry as a whole.

For up-to-date information on refrigerator sales and for general news of the refrigeration and air-conditioning industry, we suggest that you subscribe to ELECTRIC REFRIGERATION NEWS, which is priced at $3 per year. We have no *free* mailing list.

We also suggest the 1935 REFRIGERATION AND AIR CONDITIONING MARKET DATA BOOK which will be available in about three weeks. This book will contain all available statistic information for past years, including refrigerator sales by months since 1930.

List of Manufacturers

No. 2176 (Parts Company, Illinois)—"Inasmuch as we are about to enter the replacement refrigeration parts business, we think we might be interested in purchasing one of your directories. Before doing so, however, will you please tell us just what information this directory contains. Does it list only manufacturers and jobbers or does it include repair or service institutions as well?"

Answer: The 1935 REFRIGERATION AND AIR CONDITIONING DIRECTORY lists manufacturers of refrigeration and air-conditioning equipment, parts, materials, and supplies in four ways—alphabetically, by trade names, geographically, and by products manufactured. Replacement parts jobbers and independent service companies are listed only in the Service Directory, a section of the 380-page DIRECTORY.

Refrigeration Parts

No. 1277 (Service Company, Texas)—"We just recently entered the field of jobbing refrigeration service materials and we were wondering if you would be kind enough to tell us the best sources of supply on the following items:

"1. Domestic refrigerator trays and shelves.

"2. Domestic refrigerator replacement piston rings, also pistons and valves.

"3. Leak finders.

"4. Gas masks and goggles.

"5. Cylinder head gaskets and other gaskets."

Answer: Following is a *partial* list of manufacturers of this equipment selected from the pages of the 1935 REFRIGERATION AND AIR CONDITIONING DIRECTORY:

Domestic refrigerator trays (page 279):

Crowe Name Plate & Mfg. Co.
1749 Grace Ave., Chicago, Ill.
Detroit Stamping Co.
3445 W. Fort St., Detroit, Mich.
Fedders Mfg. Co.
57 Tonawanda St., Buffalo, N. Y.
Hoosier Lamp & Stamping Corp.
1511 Read St., Evansville, Ind.
McCord Radiator & Mfg. Co.
2587 E. Grand Blvd., Detroit, Mich.
Starr Co., The, Richmond, Ind.

Domestic refrigerator shelves (page 234):

American Hard Rubber Co.
11 Mercer St., New York, N. Y.
Kason Hardware Corp.
127 Wallabout St., Brooklyn, N. Y.
Union Steel Products Co., Albion, Mich.

Replacement piston rings (page 272):

Iceless Refrigeration Accessories Co.
2401 Chestnut St., Philadelphia, Pa.

Domestic refrigerator replacement pistons (page 271):

Iceless Refrigeration Accessories Co.
2401 Chestnut St., Philadelphia, Pa.
Spencer-Smith Machine Co., Howell, Mich.

Domestic refrigerator replacement valves (page 272):

American Injector Co.
1481 14th St., Detroit, Mich.
Imperial Brass Mfg. Co.
564 S. Racine Ave., Chicago, Ill.
Kerotest Mfg. Co.
2525 Liberty Ave., Pittsburgh, Pa.
Marsh Corp., Jas. P.
2065 Southport Ave., Chicago, Ill.
Mueller Brass Co.
1925 Lapeer Ave., Port Huron, Mich.
Riley Engineering Corp.
1481 14th St., Detroit, Mich.
Weatherhead Co.
632 Frankfort Ave., Cleveland, Ohio.

Leak finders (page 334):

Hull Torch Mfg. Co.
439 So. Potomac St., Hagerstown, Md.
Turner Brass Works, Inc., Sycamore, Ill.

Gas masks and goggles (page 334):

Garnett Industrial Mask Co., Herbert
1220 Madison Ave., Toledo, Ohio.
Mine Safety Appliances Co.
Braddock, Thomas & Mead Sts.
Pittsburgh, Pa.
Pulmosan Safety Equipment Corp.
176-A Johnson St., Brooklyn, N. Y.

Cylinder head gaskets (page 270):

Chicago-Wilcox Mfg. Co.
E. 77th St. & Anthony Ave., Chicago, Ill.
Detroit Stamping Co.
3445 W. Fort St., Detroit, Mich.
Iceless Refrigeration Accessories Co.
2401 Chestnut St., Philadelphia, Pa.
McCord Radiator & Mfg. Co.
2587 E. Grand Blvd., Detroit, Mich.
Victor Mfg. & Gasket Co.
5750 Roosevelt Rd., Chicago, Ill.

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RATES: Fifty words or less, one insertion $2.00, additional words four cents each. Three insertions $5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Electric Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

ENGINEER SALESMAN—Experienced in handling engineering and mechanical design and sales wishes position with manufacturer of air-conditioning apparatus or similar line. Licensed engineer N. Y. State. Good mathematician and resourceful designer. Now located Western New York but open to work in other localities. Box No. 691, Electric Refrigeration News.

COMMERCIAL sales engineer with 10 years' experience supervising salesmen, selling and figuring practically all commercial applications (including air conditioning) desires connection with factory, distributor or dealer as sales supervisor, field representative, or salesman. Location optional. Box 693, Electric Refrigeration News.

EQUIPMENT FOR SALE

REFRIGERATOR DEALERS—We carry a most complete stock of new and reconditioned refrigerators; all makes and sizes. Priced right for retail resale. Our modernly equipped factory guarantees A-1 reconditioning. Special discounts for quantity purchases. New and used refrigerators bought for cash—any quantities. Send for list of refrigerators in stock and prices. Federal Refrigerator Corporation, 453 11th Ave., New York, N. Y.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. Van Deventer (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

REPAIRS

HALECTRIC thermostat repair service. B & B, G.E., Cutler-Hammer, Penn, Ranco, Tag., etc. Expansion valves repaired. Gas service, Ethyl, Methyl, Iso-Butane, Sulphur. Your cylinder or ours. Competitive prices. Halectric Laboratory, 1793 Lakeview Road, Cleveland, Ohio.